

SCR

LOW AND MEDIUM
CURRENT STACKS

C1012-13

C1112-13

C3512-13

Now, for the first time, from the originator of the Silicon Controlled Rectifier, packaged SCR building blocks, complete with SCR's, compatible rectifiers, heat sinks, interconnections, and all required hardware in one package. Requires only mounting bolts and electrical connections for power and triggering signal. Check the rest of these outstanding features:

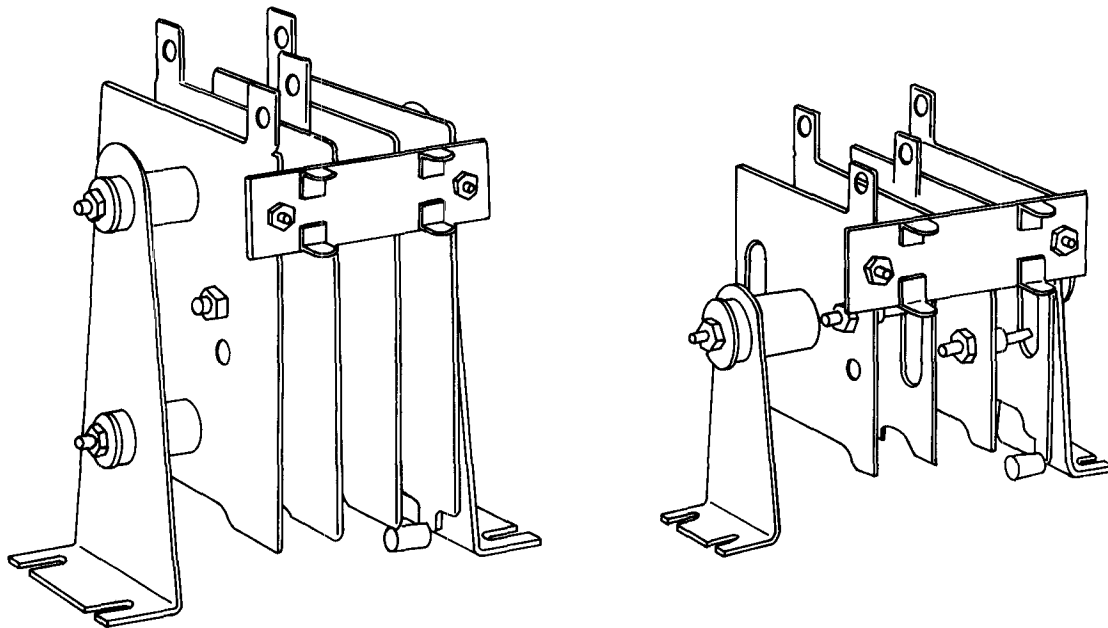
FLEXIBLE DESIGN Two fin sizes (3" x 3", 5" x 5") and 5 SCR types permit an optimum designed assembly for each application. Stacks can be mounted in either vertical or horizontal plane. An almost limitless number of circuit configurations possible.

WIDE RANGE OF OPERATING AND STORAGE TEMPERATURE . . Will operate from -65°C to $+150^{\circ}\text{C}$ Ambient.

SHIELDED TRIGGERING SIGNAL . . Coaxial shielded leads from gate/cathode terminal board to the SCR's minimize the possibility of erroneous firing caused by extraneous transients or pick up from the power leads.

PROVEN CONSTRUCTION General Electric's long years of experience in designing and supplying thousands of industrial rectifier stacks form the basis for this rugged construction. Painted fins yield high emissivity, providing optimum ratings without blowers or fans for forced air cooling.

DEPENDABILITY Backed by a General Electric one year written warranty.



CONDENSED ELECTRICAL RATINGS SCR STACKS⁽¹⁾

OPERATING TEMPERATURE RANGE	SCR TYPE	COMPATIBLE ⁽²⁾ RECTIFIER TYPE	MAXIMUM REPETITIVE PEAK REVERSE AND MINIMUM FORWARD BREAKOVER VOLTAGE	TRANSIENT PEAK REVERSE VOLTAGE (Non-Recurrent < 5 Millisec)	MAX. AVG. FORWARD CURRENT/CELL ⁽¹⁾ -25°C AMB. FREE CONVECTION						FOR OTHER AMBIENTS OR UNDER FORCED AIR COND., SEE CHARTS	PEAK ONE CYCLE SURGE CURRENT	MAXIMUM V _{OFF} AND I _{OFF} TO TRIGGER (25°C)
					3" FIN			5" FIN					
					Single Phase (180° Cond. Angle)	Three Phase (120° Cond. Angle)	D. C.	Single Phase (180° Cond. Angle)	Three Phase (120° Cond. Angle)	D. C.			
-65°C	C35U F A G B H C D E	1N2154 1N2154 1N2155 1N2156 1N2156 1N2157 1N2157 1N2158 1N2159	25V 50 100 150 200 250 300 400 500	35V 75 150 225 300 350 400 500 600	6.30A	5.80A	8.50A	10.1A	9.50A	13.65A	1 & 2	150A	3V, 40 ma
TO +125°C	C11U F A G B H C D	1N1341A 1N1341A 1N1342A 1N1343A 1N1344A 1N1344A 1N1345A 1N1345A 1N1346A	25V 50 100 150 200 250 300 400	35V 75 150 225 300 350 400 500	3.98A	3.55A	5.80A	4.72A	4.43A	7.00A	3 & 4	60A	2V, 15 ma
-65°C TO +150°C	C10U F A G B H C D	1N1341A 1N1341A 1N1342A 1N1343A 1N1344A 1N1344A 1N1345A 1N1345A 1N1346A	25V 50 100 150 200 250 300 400	35V 75 150 225 300 350 400 500	4.72A	3.95A	7.00A	4.72A	3.95A	7.00A	5 & 6	60A	2V, 15 ma

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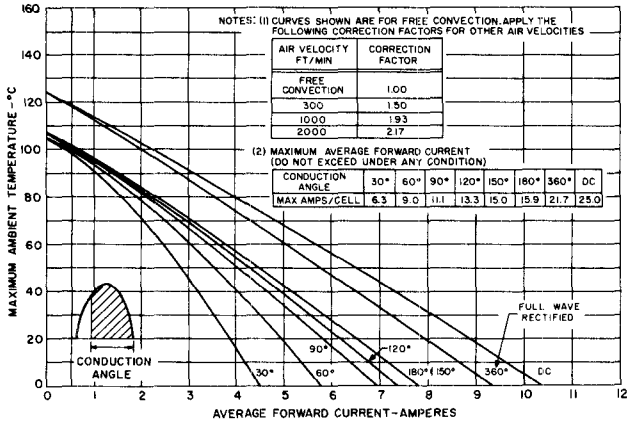
⁽¹⁾ For complete specifications covering both the SCR's and compatible rectifiers, see appropriate GE Spec Sheet.

⁽²⁾ The compatible rectifier type, where ever used, has been chosen deliberately so that the SCR, in all cases, is the limiting component.

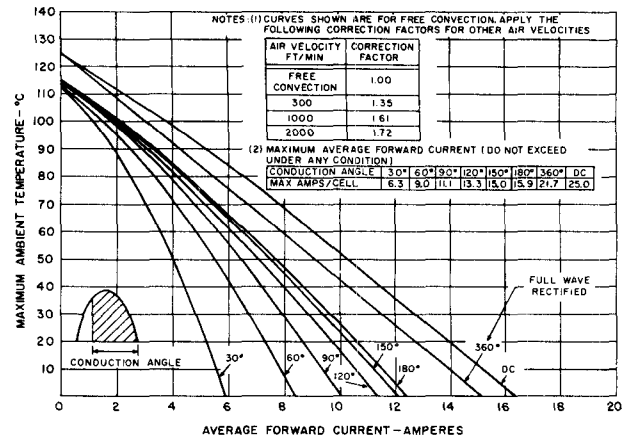
⁽³⁾ SCR's can be successfully operated in series and parallel if necessary precautions are observed. Also, depending on the specific application SCR's and rectifiers may be subjected to transient overvoltage and overcurrent conditions for which protective steps should be taken. For further details, on these application considerations, see GE Controlled Rectifier Manual, Chapter 3.

C1012-13
C1112-13
C3512-13

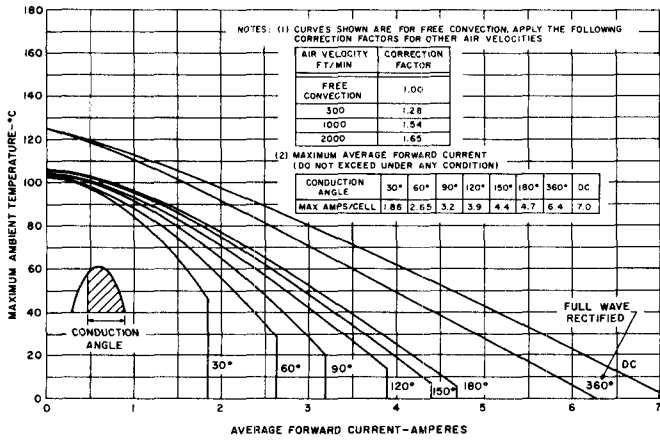
C1012-13
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C3512-13



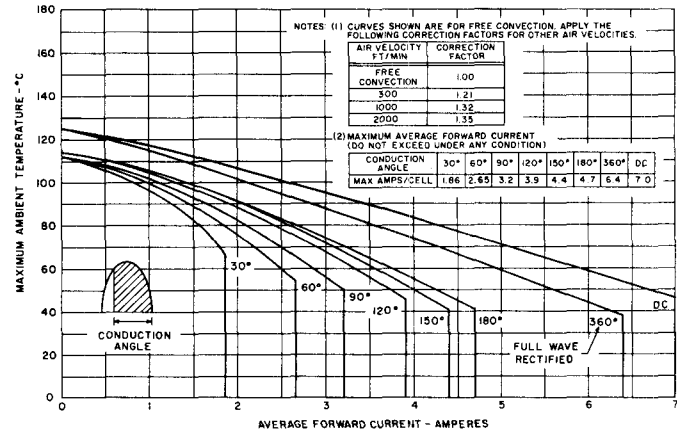
1. AMBIENT TEMP. VS. AVG. FORW. CURRENT
3" FIN-C35



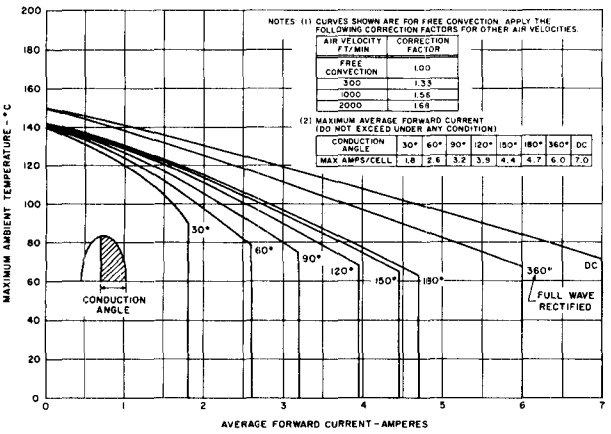
2. AMBIENT TEMP. VS. AVG. FORW. CURRENT
5" FIN-C35



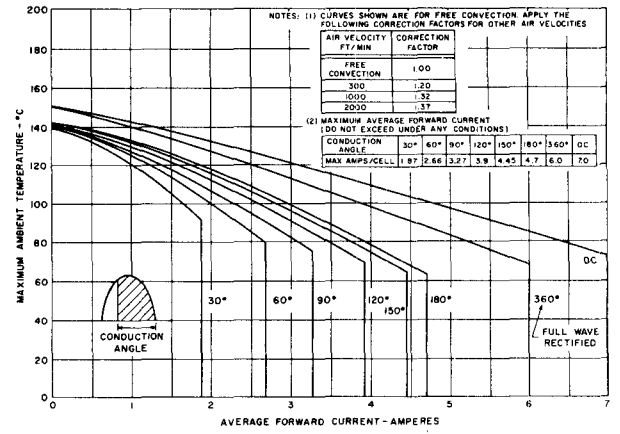
3. AMBIENT TEMP. VS. AVG. FORW. CURRENT
3" FIN-C11



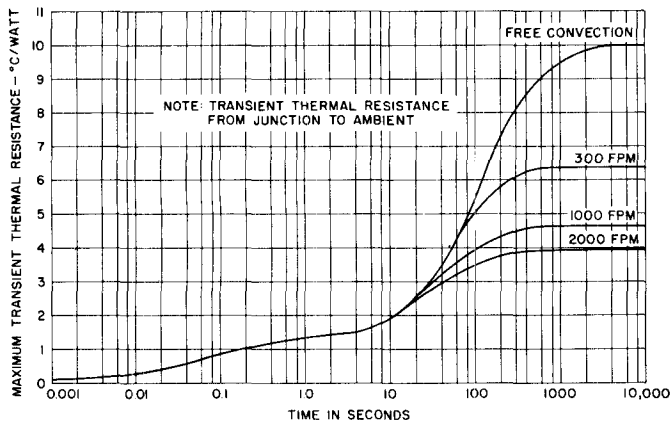
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5" FIN-C11



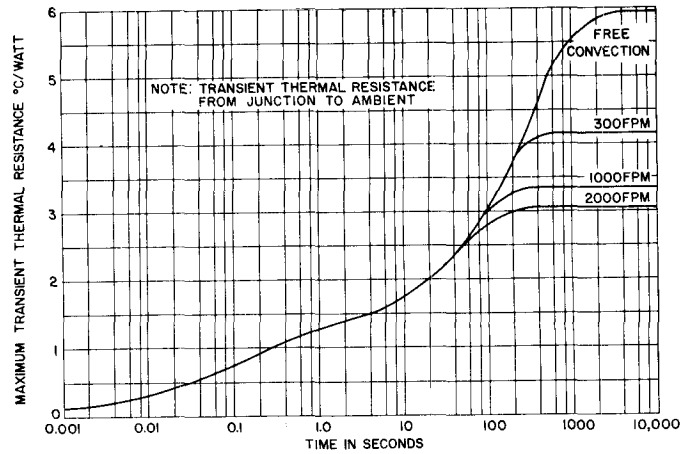
5. AMBIENT TEMP. VS. AVG. FORW. CURRENT
3" FIN-C10



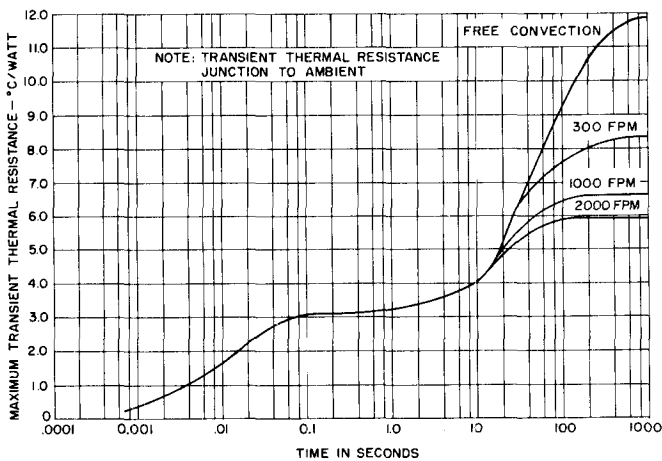
6. AMBIENT TEMP. VS. AVG. FORW. CURRENT
5" FIN-C10



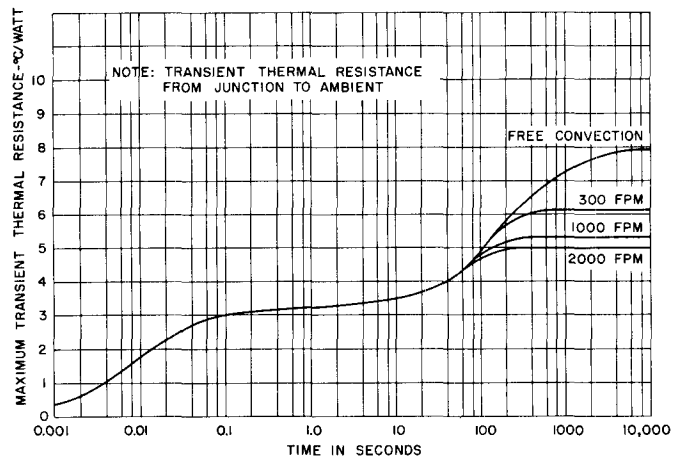
*7. MAXIMUM TRANSIENT THERMAL RESISTANCE
3" FIN-C35



*8. MAXIMUM TRANSIENT THERMAL RESISTANCE
5" FIN-C35



*9. MAXIMUM TRANSIENT THERMAL RESISTANCE
3" FIN-C10, 11



*10. MAXIMUM TRANSIENT THERMAL RESISTANCE
5" FIN-C10, 11

Note: *

Charts 7, 8, 9, and 10 define the temperature rise of the junction above the ambient for a single load pulse of duration t . The peak allowable dissipation in the controlled rectifier for time t , if starting from ambient temperature, equals the Maximum Junction Temperature of the SCR used

minus the maximum ambient temperature, divided by the transient thermal resistance:

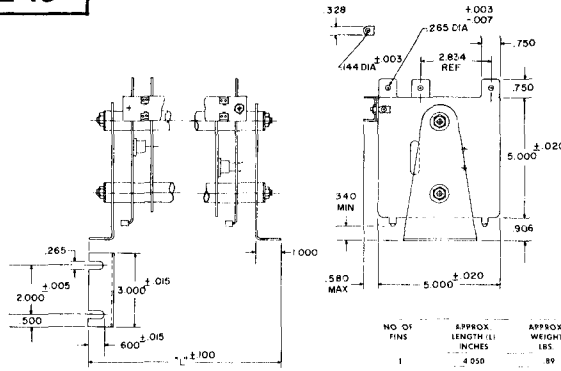
$$P_{Peak} = \frac{T_{j \max} - T_{amb.}}{r_T}$$

For optimum ratings and further information, see Publication 200.9 entitled "Power Semiconductor Ratings under Transient and Intermittent Loads."

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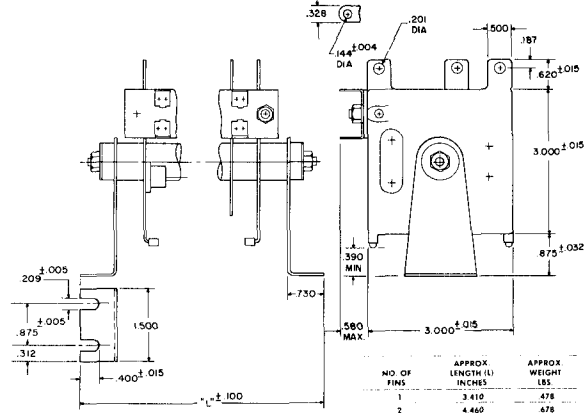
MECHANICAL SPECIFICATIONS

OUTLINE AND WEIGHT (5 INCH FIN)
C3512, C4012, C1012, C1112 SERIES



NO. OF FINS	APPROX. LENGTH (L) INCHES	APPROX. WEIGHT LBS
1	4.055	.89
2	4.855	1.41
3	5.655	1.93
4	6.455	2.44
5	7.255	2.95
6	8.055	3.47
7	8.855	3.98
8	9.655	4.49
9	10.455	5.01
10	11.255	5.52
11	12.055	6.04
12	12.855	6.55

OUTLINE AND WEIGHT (3 INCH FIN)
C3513, C4013, C1013, C1113 SERIES



NO. OF FINS	APPROX. LENGTH (L) INCHES	APPROX. WEIGHT LBS
1	3.410	.478
2	4.460	.885
3	5.510	1.292
4	6.560	1.699
5	7.610	2.106
6	8.660	2.513
7	9.710	2.920
8	10.760	3.327
9	11.810	3.734
10	12.860	4.141
11	13.910	4.548
12	14.960	4.955

Maximum number of fins/stack = 12

Maximum Hi-Pot Voltage to Mounting Brackets 2600 V. R.M.S. @ 25°C Amb., Sea Level

Salt Spray MIL-STD-202A, Method 101A, 96 hrs.

Humidity MIL-STD-202A, Method 103A, 240 hrs.

SCR STACK NOMENCLATURE



SCR CELL MODEL NUMBER
 C35, C10, C11
 C12

FIN SIZE:
 12 — 5" sq.
 13 — 3" sq.

SCR PEAK REVERSE VOLTAGE RATINGS

U — 25V	B — 200
F — 50	H — 250
A — 100	C — 300
G — 150	D — 400
	M — 600

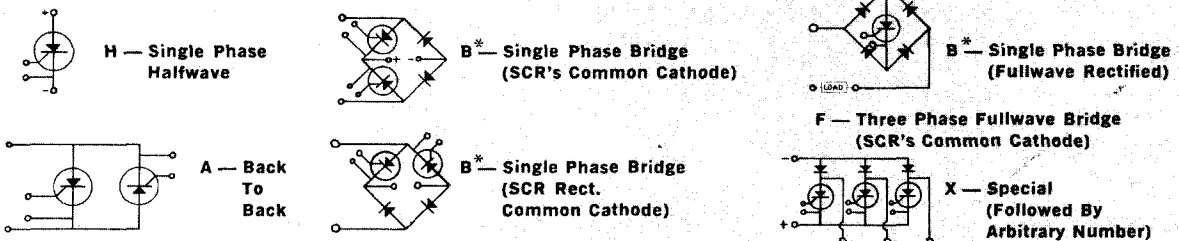
PARALLEL CELLS/LEG

MINOR MECHANICAL MODIFICATIONS
 D-Standard

MINOR ELECTRICAL MODIFICATIONS
 Polarity of Output, etc.

SERIES CELLS/LEG

CIRCUIT CONFIGURATION: (Many Additional Variations Are Available Upon Request.)



*Note: Circuit description is necessary when ordering stacks to this circuit configuration.




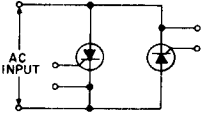
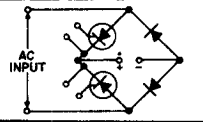
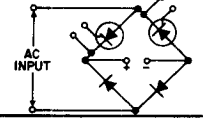
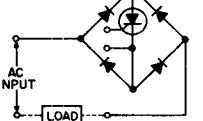
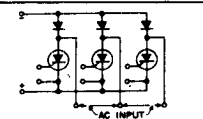
Controlled Rectifier

C1012-13
C1112-13
C3512-13

You may now quickly select and obtain the Low and Medium Current Combination SCR Stacks that fit your Controlled Rectifier applications.

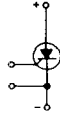
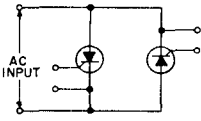
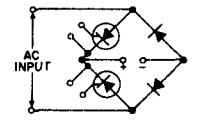
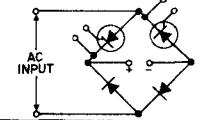
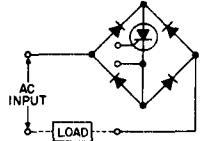
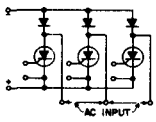
- * Fast Selection - Rating Tables Cover More Than 300 Stack Models
- * Availability - Call Your Authorized G-E Semiconductor Distributor or Semiconductor Products District Sales Manager

C10 MOUNTED ON A 3" FIN *

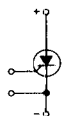
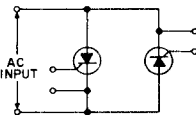
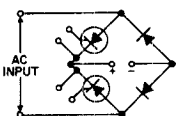
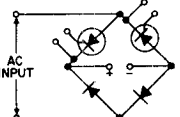
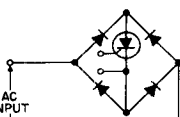
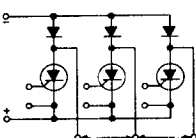
Circuit	Max Circuit Output Res. Load 25°C Amb Volts DC	Amps DC	Max Repetitive AC Input Volts "RMS"	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
Single Phase Halfwave 	7.0	4.72(180°)	17	25	35	1	C1013UH1AD1
	15.0		35	50	75		FH1AD1
	30.5		70	100	150		AH1AD1
	46.5		105	150	225		GH1AD1
	62.0		140	200	300		BH1AD1
	77.0		175	250	350		HH1AD1
	93.5		210	300	400		CH1AD1
	125.0		280	400	500		DH1AD1
Back to Back 	15.0(RMS)	10.50(RMS)	17	25	35	2	C1013UA1AD1
	33.0		35	50	75		FA1AD1
	68.0		70	100	150		AA1AD1
	103.0		105	150	225		GA1AD1
	138.0		140	200	300		BA1AD1
	173.0		175	250	350		HA1AD1
	208.0		210	300	400		CA1AD1
	278.0		280	400	500		DA1AD1
Single Phase Bridge (SCR's Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1013UB1CD1
	28.5		35	50	75		FB1CD1
	60.0		70	100	150		AB1CD1
	91.5		105	150	225		GB1CD1
	123.0		140	200	300		BB1CD1
	154.5		175	250	350		HB1CD1
	186.0		210	300	400		CB1CD1
	249.0		280	400	500		DB1CD1
Single Phase Bridge (SCR-Rect Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1013UB1AD1
	28.5		35	50	75		FB1AD1
	60.0		70	100	150		AB1AD1
	91.5		105	150	225		GB1AD1
	123.0		140	200	300		BB1AD1
	154.5		175	250	350		HB1AD1
	186.0		210	300	400		CB1AD1
	249.0		280	400	500		DB1AD1
Single Phase Bridge (Fullwave Rectified) 	12.0	6.40(360°)	17	25	35	5	C1013UB1FD1
	28.0		35	50	75		FB1FD1
	59.7		70	100	150		AB1FD1
	91.5		105	150	225		GB1FD1
	123.0		140	200	300		BB1FD1
	154.0		175	250	350		HB1FD1
	186.0		210	300	400		CB1FD1
	249.0		280	400	500		DB1FD1
3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0	11.85	17	25	35	6	C1013UF1AD1
	44.0		35	50	75		FF1AD1
	91.5		70	100	150		AF1AD1
	138.5		105	150	225		GF1AD1
	186.0		140	200	300		BF1AD1
	223.0		175	250	350		HF1AD1
	280.5		210	300	400		CF1AD1
	375.0		280	400	500		DF1AD1

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C10 MOUNTED ON A 5" FIN *

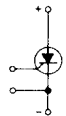
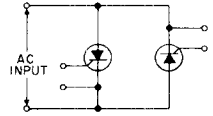
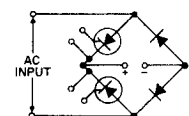
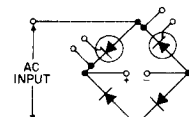
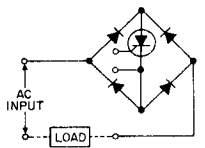
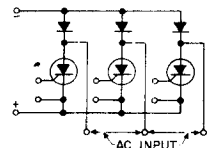
Circuit	Max Circuit Output Res. Load 25°C Amb		Max Repetitive AC Input Volts "RMS"	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
	Volts DC	Amps DC					
Single Phase Halfwave 	7.0	4.72(180°)	17	25	35	1	C1012UH1AD1
	15.0		35	50	75		
	30.5		70	100	150		
	46.5		105	150	225		
	62.0		140	200	300		
	77.0		175	250	350		
	93.5		210	300	400		
	125.0		280	400	500		
Back to Back 	15.0(RMS)	10.50(RMS)	17	25	35	2	C1012UA1AD1
	33.0		35	50	75		
	68.0		70	100	150		
	103.0		105	150	225		
	138.0		140	200	300		
	173.0		175	250	350		
	208.0		210	300	400		
	278.0		280	400	500		
Single Phase Bridge (SCR's Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1012UB1CD1
	28.5		35	50	75		
	60.0		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.5		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
Single Phase Bridge (SCR-Rect Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1012UB1AD1
	28.5		35	50	75		
	60.0		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.5		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
Single Phase Bridge (Fullwave Rectified) 	12.0	6.40(360°)	17	25	35	5	C1012UB1FD1
	28.0		35	50	75		
	59.7		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.0		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0	11.85	17	25	35	6	C1012UF1AD1
	44.0		35	50	75		
	91.5		70	100	150		
	138.5		105	150	225		
	186.0		140	200	300		
	223.0		175	250	350		
	280.5		210	300	400		
	375.0		280	400	500		

C11 MOUNTED ON A 3" FIN *

Circuit	Max Circuit Output Res. Load 25°C Amb		Max Repetitive AC Input Volts "RMS"	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
	Volts DC	Amps DC					
Single Phase Halfwave 	7.0	3.98(180°)	17	25	35	1	C1113UH1AD1
	15.0		35	50	75		FH1AD1
	30.5		70	100	150		AH1AD1
	46.5		105	150	225		GH1AD1
	62.0		140	200	300		BH1AD1
	77.0		175	250	350		HH1AD1
	93.5		210	300	400		CH1AD1
	125.0		280	400	500		DH1AD1
	156.5		350	500	600		EH1AD1
	190.0		425	600	720		MH1AD1
Back to Back 	15.0(RMS)	8.83(RMS)	17	25	35	2	C1113UA1AD1
	33.0		35	50	75		FA1AD1
	68.0		70	100	150		AA1AD1
	103.0		105	150	225		GA1AD1
	138.0		140	200	300		BA1AD1
	173.0		175	250	350		HA1AD1
	208.0		210	300	400		CA1AD1
	278.0		280	400	500		DA1AD1
	348.0		350	500	600		EA1AD1
	422.0		425	600	720		MA1AD1
Single Phase Bridge (SCR's Common Cathode) 	12.0	7.96(360°)	17	25	35	4	C1113UB1CD1
	28.5		35	50	75		FB1CD1
	60.0		70	100	150		AB1CD1
	91.5		105	150	225		GB1CD1
	123.0		140	200	300		BB1CD1
	154.5		175	250	350		HB1CD1
	186.0		210	300	400		CB1CD1
	249.0		280	400	500		DB1CD1
	312.0		350	500	600		EB1CD1
	376.0		425	600	720		MB1CD1
Single Phase Bridge (SCR-Rect Common Cathode) 	12.0	7.96(360°)	17	25	35	4	C1113UB1AD1
	28.5		35	50	75		FB1AD1
	60.0		70	100	150		AB1AD1
	91.5		105	150	225		GB1AD1
	123.0		140	200	300		BB1AD1
	154.5		175	250	350		HB1AD1
	186.0		210	300	400		CB1AD1
	249.0		280	400	500		DB1AD1
	312.0		350	500	600		EB1AD1
	376.0		425	600	720		MB1AD1
Single Phase Bridge (Fullwave Rectified) 	12.0	5.20(360°)	17	25	35	5	C1113UB1FD1
	28.5		35	50	75		FB1FD1
	60.0		70	100	150		AB1FD1
	91.5		105	150	225		GB1FD1
	123.0		140	200	300		BB1FD1
	154.5		175	250	350		HB1FD1
	186.0		210	300	400		CB1FD1
	249.0		280	400	500		DB1FD1
	312.0		350	500	600		EB1FD1
	376.0		425	600	720		MB1FD1
3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0	10.65	17	25	35	6	C1113UF1AD1
	44.0		35	50	75		FF1AD1
	91.5		70	100	150		AF1AD1
	138.5		105	150	225		GF1AD1
	186.0		140	200	300		BF1AD1
	223.0		175	250	350		HF1AD1
	280.5		210	300	400		CF1AD1
	375.0		280	400	500		DF1AD1
	469.5		350	500	600		EF1AD1
	565.5		425	600	720		MF1AD1

C1012-13
C1112-13
C3512-13

C11 MOUNTED ON A 5" FIN *

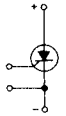
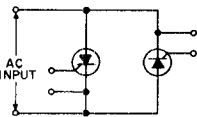
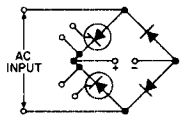
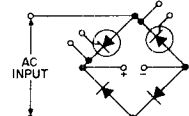
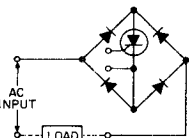
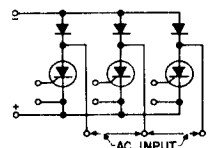
Circuit	Max Circuit Output Res. Load 25°C Amb		Max Repetitive AC Input Volts 'RMS'	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
	Volts DC	Amps DC					
Single Phase Halfwave 	7.0	4.72(180°)	17	25	35	1	C1112UH1AD1
	15.0		35	50	75		
	30.5		70	100	150		
	46.5		105	150	225		
	62.0		140	200	300		
	77.0		175	250	350		
	93.5		210	300	400		
	125.0		280	400	500		
	156.5		350	500	600		
	190.0		425	600	720		
Back to Back 	15.0(RMS)	10.50(RMS)	17	25	35	2	C1112UA1AD1
	33.0		35	50	75		
	68.0		70	100	150		
	103.0		105	150	225		
	138.0		140	200	300		
	173.0		175	250	350		
	208.0		210	300	400		
	278.0		280	400	500		
	348.0		350	500	600		
	422.0		425	600	720		
Single Phase Bridge (SCR's Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1112UB1CD1
	28.5		35	50	75		
	60.0		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.5		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
	312.0		350	500	600		
	376.0		425	600	720		
Single Phase Bridge (SCR-Rect Common Cathode) 	12.0	9.44(360°)	17	25	35	4	C1112UB1AD1
	28.5		35	50	75		
	60.0		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.5		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
	312.0		350	500	600		
	376.0		425	600	720		
Single Phase Bridge (Fullwave Rectified) 	12.0	6.40(360°)	17	25	35	5	C1112UB1FD1
	28.5		35	50	75		
	60.0		70	100	150		
	91.5		105	150	225		
	123.0		140	200	300		
	154.5		175	250	350		
	186.0		210	300	400		
	249.0		280	400	500		
	312.0		350	500	600		
	376.0		425	600	720		
3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0	11.85	17	25	35	6	C1112UF1AD1
	44.0		35	50	75		
	91.5		70	100	150		
	138.5		105	150	225		
	186.0		140	200	300		
	223.0		175	250	350		
	280.5		210	300	400		
	375.0		280	400	500		
	469.5		350	500	600		
	565.5		425	600	720		

C1012-13

C1112-13

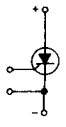
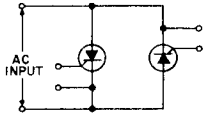
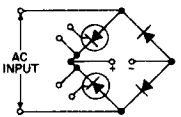
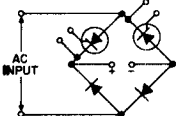
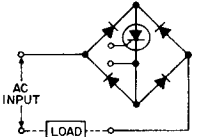
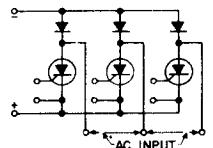
C3512-13

C35 MOUNTED ON A 3" FIN *

Circuit	Max Circuit Output Res. Load 25°C Amb		Max Repetitive AC Input Volts "RMS"	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
	Volts DC	Amps DC					
Single Phase Halfwave 	7.0	6.3(180°)	17	25	35	1	C3513UH1AD1
	15.0		35	50	75		FH1AD1
	30.5		70	100	150		AH1AD1
	46.5		105	150	225		GH1AD1
	62.0		140	200	300		BH1AD1
	77.0		175	250	350		HH1AD1
	93.5		210	300	400		CH1AD1
	125.0		280	400	500		DH1AD1
	156.5		350	500	600		EH1AD1
	190.0		425	600	720		MH1AD1
	Back to Back 		15.0(RMS)	13.9(RMS)	17		25
33.0		35	50		75	FA1AD1	
68.0		70	100		150	AA1AD1	
103.0		105	150		225	GA1AD1	
138.0		140	200		300	BA1AD1	
173.0		175	250		350	HA1AD1	
208.0		210	300		400	CA1AD1	
278.0		280	400		500	DA1AD1	
348.0		350	500		600	EA1AD1	
422.0		425	600		720	MA1AD1	
Single Phase Bridge (SCR's Common Cathode) 		12.0	12.6(360°)		17	25	35
	28.5	35		50	75	FB1CD1	
	60.0	70		100	150	AB1CD1	
	91.5	105		150	225	GB1CD1	
	123.0	140		200	300	BB1CD1	
	154.5	175		250	350	HB1CD1	
	186.0	210		300	400	CB1CD1	
	249.0	280		400	500	DB1CD1	
	312.0	350		500	600	EB1CD1	
	376.0	425		600	720	MB1CD1	
	Single Phase Bridge (SCR-Rect Common Cathode) 	12.0		12.6(360°)	17	25	35
28.5		35	50		75	FB1AD1	
60.0		70	100		150	AB1AD1	
91.5		105	150		225	GB1AD1	
123.0		140	200		300	BB1AD1	
154.5		175	250		350	HB1AD1	
186.0		210	300		400	CB1AD1	
249.0		280	400		500	DB1AD1	
312.0		350	500		600	EB1AD1	
376.0		425	600		720	MB1AD1	
Single Phase Bridge (Fullwave Rectified) 		12.0	7.6(360°)		17	25	35
	28.5	35		50	75	FB1FD1	
	60.0	70		100	150	AB1FD1	
	91.5	105		150	225	GB1FD1	
	123.0	140		200	300	BB1FD1	
	154.5	175		250	350	HB1FD1	
	186.0	210		300	400	CB1FD1	
	249.0	280		400	500	DB1FD1	
	312.0	350		500	600	EB1FD1	
	376.0	425		600	720	MB1FD1	
	3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0		17.4	17	25	35
44.0		35	50		75	FF1AD1	
91.5		70	100		150	AF1AD1	
138.5		105	150		225	GF1AD1	
186.0		140	200		300	BF1AD1	
223.0		175	250		350	HF1AD1	
280.5		210	300		400	CF1AD1	
375.0		280	400		500	DF1AD1	
469.5		350	500		600	EF1AD1	
565.5		425	600		720	MF1AD1	

C1012-13
C1112-13
C3512-13

C35 MOUNTED ON A 5" FIN *

Circuit	Max Circuit Output Res. Load 25°C Amb Volts DC	Max Circuit Output Amps DC	Max Repetitive AC Input Volts "RMS"	SCR/ Cell PRV-VBO	Transient PRV (Non-recurrent)	No. of Fins/ Stack	Model Number
Single Phase Halfwave 	7.0	10.1(180°)	17	25	35	1	C3512UH1AD1
	15.0		35	50	75		FH1AD1
	30.5		70	100	150		AH1AD1
	46.5		105	150	225		GH1AD1
	62.0		140	200	300		BH1AD1
	77.0		175	250	350		HH1AD1
	93.5		210	300	400		CH1AD1
	125.0		280	400	500		DH1AD1
	156.5		350	500	600		EH1AD1
	190.0		425	600	720		MH1AD1
	Back to Back 	15.0 (RMS)	22.4 (RMS)	17	25		35
33.0			35	50	75	FA1AD1	
68.0			70	100	150	AA1AD1	
103.0			105	150	225	GA1AD1	
138.0			140	200	300	BA1AD1	
173.0			175	250	350	HA1AD1	
208.0			210	300	400	CA1AD1	
278.0			280	400	500	DA1AD1	
348.0			350	500	600	EA1AD1	
422.0			425	600	720	MA1AD1	
Single Phase Bridge (SCR's Common Cathode) 		12.0	20.2(360°)	17	25	35	4
	28.5		35	50	75	FB1CD1	
	60.0		70	100	150	AB1CD1	
	91.5		105	150	225	GB1CD1	
	123.0		140	200	300	BB1CD1	
	154.5		175	250	350	HB1CD1	
	186.0		210	300	400	CB1CD1	
	249.0		280	400	500	DB1CD1	
	312.0		350	500	600	EB1CD1	
	376.0		425	600	720	MB1CD1	
	Single Phase Bridge (SCR-Rect Common Cathode) 	12.0	20.2(360°)	17	25	35	
28.5			35	50	75	FB1AD1	
60.0			70	100	150	AB1AD1	
91.5			105	150	225	GB1AD1	
123.0			140	200	300	BB1AD1	
154.5			175	250	350	HB1AD1	
186.0			210	300	400	CB1AD1	
249.0			280	400	500	DB1AD1	
312.0			350	500	600	EB1AD1	
376.0			425	600	720	MB1AD1	
Single Phase Bridge (Fullwave Rectified) 		12.0	12(360°)	17	25	35	5
	28.5		35	50	75	FB1FD1	
	60.0		70	100	150	AB1FD1	
	91.5		105	150	225	GB1FD1	
	123.0		140	200	300	BB1FD1	
	154.5		175	250	350	HB1FD1	
	186.0		210	300	400	CB1FD1	
	249.0		280	400	500	DB1FD1	
	312.0		350	500	600	EB1FD1	
	376.0		425	600	720	MB1FD1	
	3 Phase Fullwave Bridge (SCR's Common Cathode) 	20.0	28.5	17	25	35	
44.0			35	50	75	FF1AD1	
91.5			70	100	150	AF1AD1	
138.5			105	150	225	GF1AD1	
186.0			140	200	300	BF1AD1	
223.0			175	250	350	HF1AD1	
280.5			210	300	400	CF1AD1	
375.0			280	400	500	DF1AD1	
469.5			350	500	600	EF1AD1	
565.5			425	600	720	MF1AD1	