

## GERMANIUM POWER TRANSISTORS

TYPE NUMBER	CASE TYPE	$V_{CBO}$ V	$V_{CEO}$ V	$V_{EBO}$ V	$V_{CER}$ V	$V_{CES}$ V	CURRENT GAIN				SATURATION VOLTAGES			
							$h_{FE}$		$V_{CE}$ V	$I_C$ A	$V_{CE(s)}$ V	$V_{BE(s)}$ V	$I_C$ A	$I_B$ A
							MIN.	MAX.	@					
<b>15 AMP GERMANIUM PNP</b>							Observe (–) Negative Polarity							
2N2077	TO-36	50	45	25.0		50	20	40	2.0	5.0	.90		12.0	2.000
2N2078	TO-36	40	25	20.0		40	20	40	2.0	5.0	.90		12.0	2.000
2N2079	TO-36	80	65	40.0		80	35	70	2.0	5.0	.70		12.0	2.000
2N2080	TO-36	70	55	35.0		70	35	70	2.0	5.0	.70		12.0	2.000
2N2081	TO-36	50	45	25.0		50	35	70	2.0	5.0	.90		12.0	2.000
2N2082	TO-36	40	25	20.0		40	35	70	2.0	5.0	.90		12.0	2.000
2N2612	TO-3	65	30	30.0			85	250	2.0	10.0	1.00		10.0	.150
<b>15 AMP GERMANIUM PNP TETRODES</b>							Observe (–) Negative Polarity							
3N49	MT-70	60	35				30	120	2.0	5.0	.40		5.0	.500
3N50	MT-70	80	50				20	80	2.0	5.0	.40		5.0	.500
3N51	MT-70	40	25				30	120	2.0	5.0	.40		5.0	.500
3N52	MT-70	60	40				20	80	2.0	5.0	.40		5.0	.500
<b>25 AMP GERMANIUM PNP</b>							Observe (–) Negative Polarity							
2N511	TO-41	40	20	30.0		50	20	60	2.0	10.0	.50		10.0	1.000
2N511A	TO-41	60	30	30.0		60	20	60	2.0	10.0	.50		10.0	1.000
2N511B	TO-41	80	40	30.0		65	20	60	2.0	10.0	.50		10.0	1.000
2N512	TO-41	40		30.0		50	20	60	2.0	15.0	1.00		15.0	2.250
2N512A	TO-41	60		30.0		60	20	60	2.0	15.0	1.00		15.0	2.250
2N512B	TO-41	80		30.0		65	20	60	2.0	15.0	1.00		15.0	2.250
2N513	TO-41	40	20	30.0			20	60	2.0	20.0	1.25		20.0	3.000
2N513A	TO-41	60	30	30.0			20	60	2.0	20.0	1.25		20.0	3.000
2N513B	TO-41	80	40	30.0			20	60	2.0	20.0	1.25		20.0	3.000
2N514	TO-41	40	40	30.0			20	60	2.0	25.0	1.25		25.0	3.750
2N514A	TO-41	60	50	30.0			20	60	2.0	25.0	1.25		25.0	3.750
2N514B	TO-41	80	60	30.0			20	60	2.0	25.0	1.25		25.0	3.750
2N575	MT-7	60	50	2.8			10		2.0	25.0	.50		10.0	2.000
2N575A	MT-7	80	55	2.8			10		2.0	25.0	.50		10.0	2.000
2N1162	TO-3	50		25.0		35	15	65	1.0	25.0	.80		25.0	1.600
2N1162A	TO-3	50	20	25.0		35	15	65	1.0	25.0	1.00		25.0	1.600
2N1163	TO-3	50		25.0		35	15	65	1.0	25.0	.80		25.0	1.600
2N1163A	TO-3	50	20	25.0		35	15	65	1.0	25.0	1.00		25.0	1.600
2N1164	TO-3	80		40.0		60	15	65	1.0	25.0	.80		25.0	1.600
2N1164A	TO-3	80	40	40.0		60	15	65	1.0	25.0	1.00		25.0	1.600
2N1165	TO-3	80		40.0		60	15	65	1.0	25.0	.80		25.0	1.600
2N1165A	TO-3	80	40	40.0		60	15	65	1.0	25.0	1.00		25.0	1.600
2N1166	TO-3	100		50.0		75	15	65	1.0	25.0	.80		25.0	1.600
2N1166A	TO-3	100	50	50.0		75	15	65	1.0	25.0	1.00		25.0	1.600
2N1167	TO-3	100		50.0		75	15	65	1.0	25.0	.80		25.0	1.600
2N1167A	TO-3	100	50	50.0		75	15	65	1.0	25.0	1.00		25.0	1.600
2N1651	TO-41	60		1.5		60	35	140	2.0	10.0	.65	.90	25.0	2.500
2N1652	TO-41	100		1.5		100	35	140	2.0	10.0	.65	.90	25.0	2.500
2N1653	TO-41	120		1.5		120	35	140	2.0	10.0	.65	.90	25.0	2.500
2N1751	TO-3	80		2.5		80	30	90	1.5	20.0	.50		20.0	2.500
2N2285	TO-3	60	30	1.5			35	140	2.0	10.0	.65	1.50	25.0	2.500
2N2286	TO-3	100	60	1.5			35	140	2.0	10.0	.65	1.50	25.0	2.500
2N2287	TO-3	120	80	1.5			35	140	2.0	10.0	.65	1.50	25.0	2.500
2N2636	TO-41	100	60	1.5			35	140	2.0	10.0	.65	.90	25.0	2.500
2N2637	TO-41	100	60	1.5			35	140	2.0	10.0	.65	.90	25.0	2.500
2N2638	TO-41	100	60	1.5			35	140	2.0	10.0	.65	.90	25.0	2.500
2N2691	TO-41	100	80	1.5			30	100	1.5	20.0	.65	.90	25.0	2.500
2N2691A	TO-41	120	80	1.5			50	100	1.5	20.0	.65	.90	25.0	2.500
SDG600	TO-3	75	50	1.5			50		2.0	5.0	.75	1.40	25.0	
SDG601	TO-3	75	60	1.5			50		2.0	5.0	.75	1.40	25.0	
SDG602	TO-3	75	70	1.5			50		2.0	5.0	.75	1.40	25.0	
SDG603	TO-3	90	80	1.5			50		2.0	5.0	.75	1.40	25.0	

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$\theta_{J-C}$ °C/W	TYPICAL SWITCHING TIMES					$V_{CE}$ V	$I_C$ A	EL	TYPE NUMBER
	$t_r$ $\mu s$	$t_{on}$ $\mu s$	$t_s$ $\mu s$	$t_f$ $\mu s$	$t_{off}$ $\mu s$				
<b>15 AMP GERMANIUM PNP</b> Observe (-) Negative Polarity									
.50								17	2N2077
.50								17	2N2078
.50								17	2N2079
.50								17	2N2080
.50								17	2N2081
.50								17	2N2082
1.00								G7	2N2612
<b>15 AMP GERMANIUM PNP TETRODES</b> Observe (-) Negative Polarity									
.80								G2	3N49
.80								G2	3N50
.80								G2	3N51
.80								G2	3N52
<b>25 AMP GERMANIUM PNP</b> Observe (-) Negative Polarity									
.50								G7	2N511
.50								G7	2N511A
.50								G7	2N511B
.50								G7	2N512
.50								G7	2N512A
.50								G7	2N512B
.50								G7	2N513
.50								G7	2N513A
.50								G7	2N513B
.70								G7	2N514
.70								G7	2N514A
.70								G7	2N514B
.40								10	2N575
.40								10	2N575A
.80								G7	2N1162
.80								G7	2N1162A
.80								G7	2N1163
.80								G7	2N1163A
.80								G7	2N1164
.80								G7	2N1164A
.80								G7	2N1165
.80								G7	2N1165A
.80								G7	2N1166
.80								G7	2N1166A
.80								G7	2N1167
.80								G7	2N1167A
.80								D3	2N1651
.80								D3	2N1652
.80								D3	2N1653
.80								D3	2N1751
.80								D3	2N2285
.80								D3	2N2286
.80								D3	2N2287
.80								D3	2N2636
.80								D3	2N2637
.80								D3	2N2638
.80								D3	2N2691
.50								D3	2N2691A
1.00								D3	SDG600
1.00								D3	SDG601
1.00								D3	SDG602
1.00								D3	SDG603