

IN3879-IN3883 SERIES

Fast Recovery Rectifier 6 Amp Silicon Diode

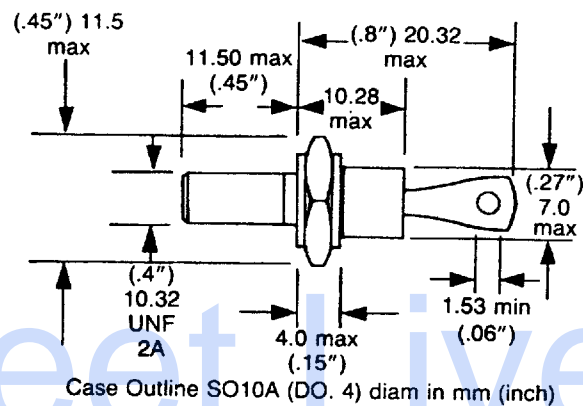
FEATURES

- Hermetically sealed D04
- Recovery time 200 nS
- Low overshoot current
- Normal and reverse polarity

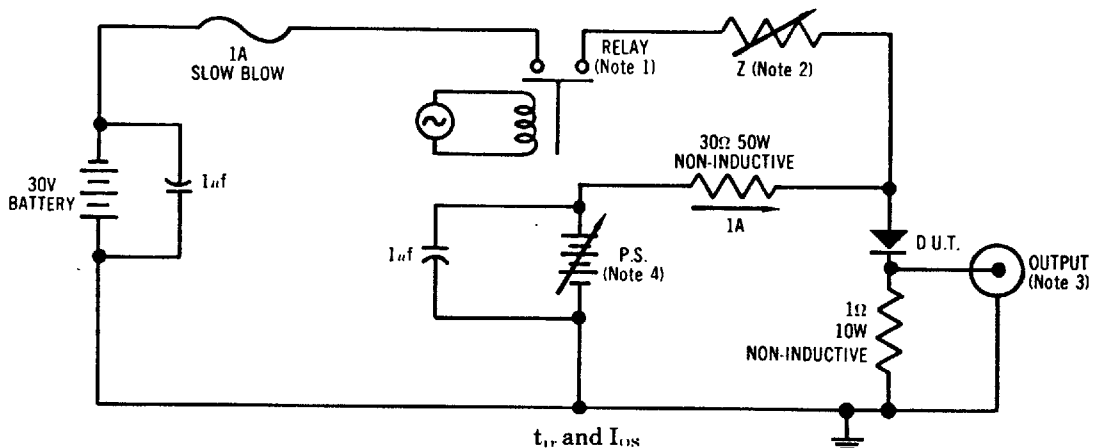
MECHANICAL DATA

- Case: Industry standard D04 7/16th Hex stud with 10-32 UNF threads, welded, hermetically sealed metal and glass
- Finish: All external surfaces are corrosion resistant and terminal solderable
- Weight: 7.5 grams
- Mounting Position: Any
- Polarity: Standard polarity: cathode to stud.
Reverse polarity: anode to stud (suffix R)
- Mounting Hardware: Available on request

METAL D04



TEST CIRCUIT FOR RECOVERY TIME





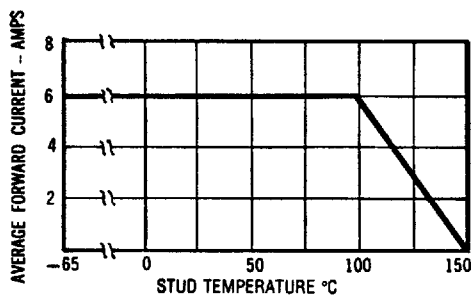
Electrical Characteristics @ 25°C, unless otherwise specified

JEDEC Type Number	Rated DC Blocking Voltage	Peak Reverse Voltage	Average Forward Current	Maximum Forward Voltage	Maximum Reverse Current			
					25°C		100°C	
					V_R	I_R	I_R	
	-65°C to 100°C	-65°C to 100°C	-65°C to 100°C	$I_F = 6A$	$I_O = 6A @ V_{RM}$ -65°C to 100°C	$V_R = \text{Rated Value}$	@ V_{RM} $I_O = 6A$ $f = 60Hz$	
	Volts	Volts	Amps	Volts	Volts	I_R	I_R	I_R (Ave)
						μA	mA	mA
1N3879	50	50	6	1.4	1.5	15	1.0	3.0
1N3880	100	100	6	1.4	1.5	15	1.0	3.0
1N3881	200	200	6	1.4	1.5	15	1.0	3.0
1N3882	300	300	6	1.4	1.5	15	1.0	3.0
1N3883	400	400	6	1.4	1.5	15	1.0	3.0

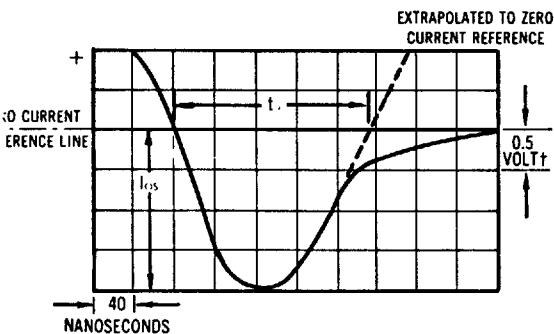
Switching Characteristics @ 25°C, unless otherwise specified

JEDEC Type Number	Maximum Recovery Time	Maximum Current Overshoot
	See Fig. 1, 2 & 3	
	t_{rr}	I_{os}
	nSec	Amps
1N3879	200	2.0
1N3880	200	2.0
1N3881	200	2.0
1N3882	200	2.0
1N3883	200	2.0

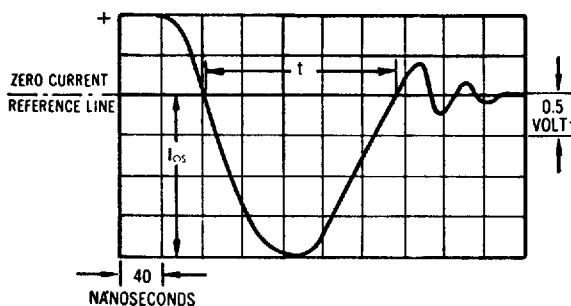
DERATING CURVE



TYPICAL OSCILLOSCOPE PATTERNS OF RECOVERY



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- NOTE 1** The relay is a make-before-break, wetted-mercury-contact type driven by a 60 Hz sine wave. Conduction time is 640 μ Sec and it is open approximately 7.7 mSec.
- NOTE 2** Z is a 3 Ω , 25 W rheostat adjusted for a resistance of 1.4 Ω from the relay to the anode. The inductance between the same points is 38 μ H.
- NOTE 3** Monitoring oscilloscope characteristics: $t_r \leq 14nSec$, $R_{in} = 9 M\Omega$, $C_{in} \leq 12 pf$, $L_{in} \leq 0.5 \mu H$.
- NOTE 4** Power supply has an output impedance of 0.5 Ω from DC to 2kHz.

