

1Amp Super Fast Rectifiers

FEATURES :

- Super fast speed switching speed
- Low forward voltage drop
- Low leakage current
- High forward surge capability.
- High reliability.
- High temperature soldering guaranteed 260°C/10 Seconds,0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension.



DO-41

MECHANICAL DATA :

- Case : Molded plastic, DO-41.
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



MAXIMUM RATINGS (Ratings at 25 °C ambient temperature unless otherwise specified. Single, half wave, 60Hzm resistive or inductive load. For capacitive load, derate current by 20%)

Characteristic	Symbol	SF11	SF12	SF13	SF14	SF15	SF16	SF18	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum DC Blocking Voltage	V_{DC}								
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=55^\circ C$	$I_{(AV)}$	1.0							A
Peak Forward surge current 8.3ms single half-sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V_F	0.95			1.25		1.70		V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=100^\circ C$	I_R	5.0							uA
		100							uA
Typical Junction Capacitance ⁽¹⁾	C_J	30			15				pF
Maximum Reverse Recovery Time ⁽³⁾	T_{RR}	35							nS
Typical Thermal resistance ⁽²⁾	$R_{\theta JA}$	50							°C/W
Operating Junction & Storage temperature range	T_J, T_{STG}	-55~+150							°C

Note : 1. Measured at 1MHz and applied reverse voltage of 4.0 VDC.

2. Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted

3. Reverse Recovery Test Conditions : $F=0.5A$ · $I_R=1A$ · $IRR=0.25A$

RATINGS AND CHARACTERISTICS CURVES

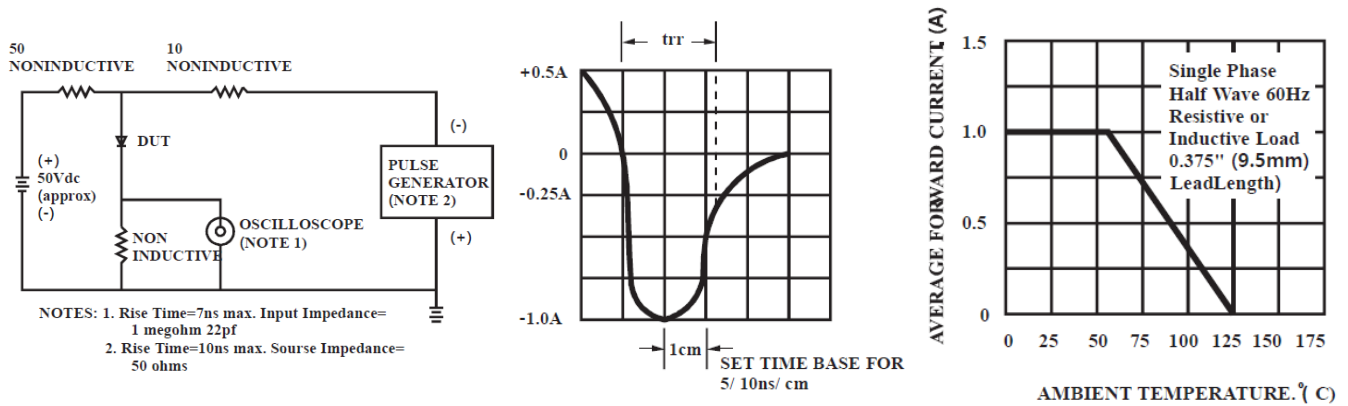


Figure 1. REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

Figure 2. MAXIMUM AVERAGE FORWARD CURRENT DERATING

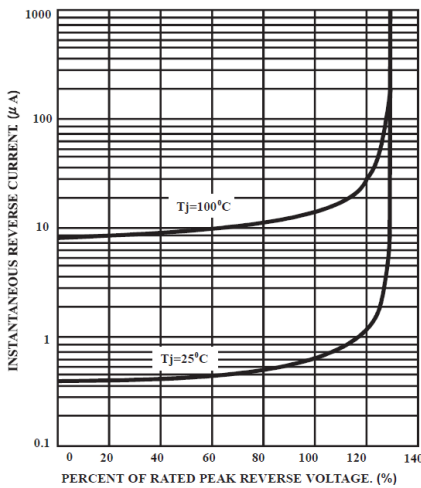


Figure 3. TYPICAL REVERSE CHARACTERISTICS

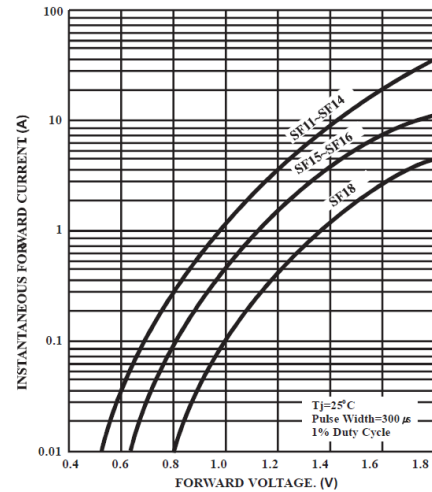


Figure 4. TYPICAL FORWARD CHARACTERISTICS

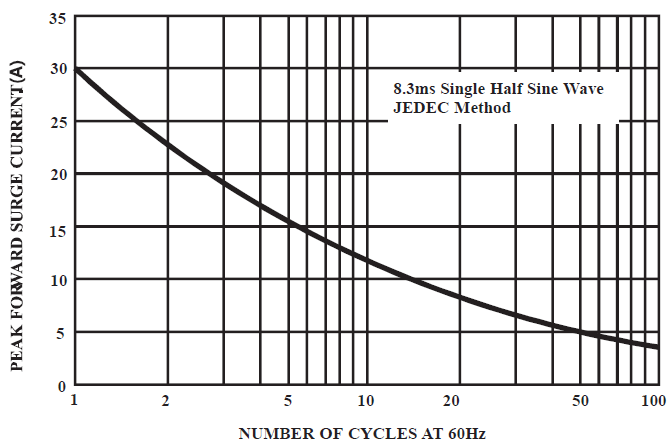


Figure 5. MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

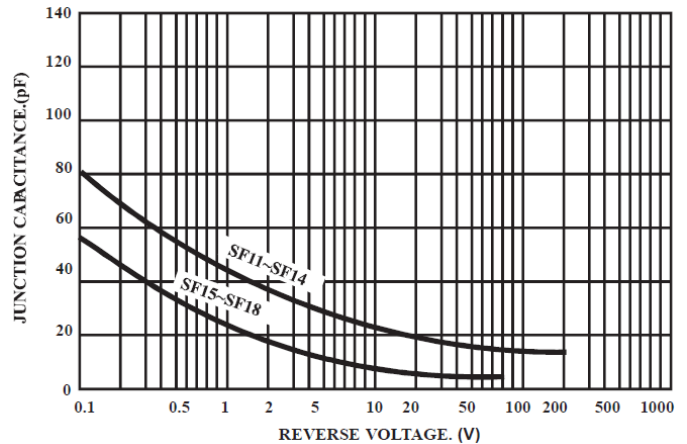
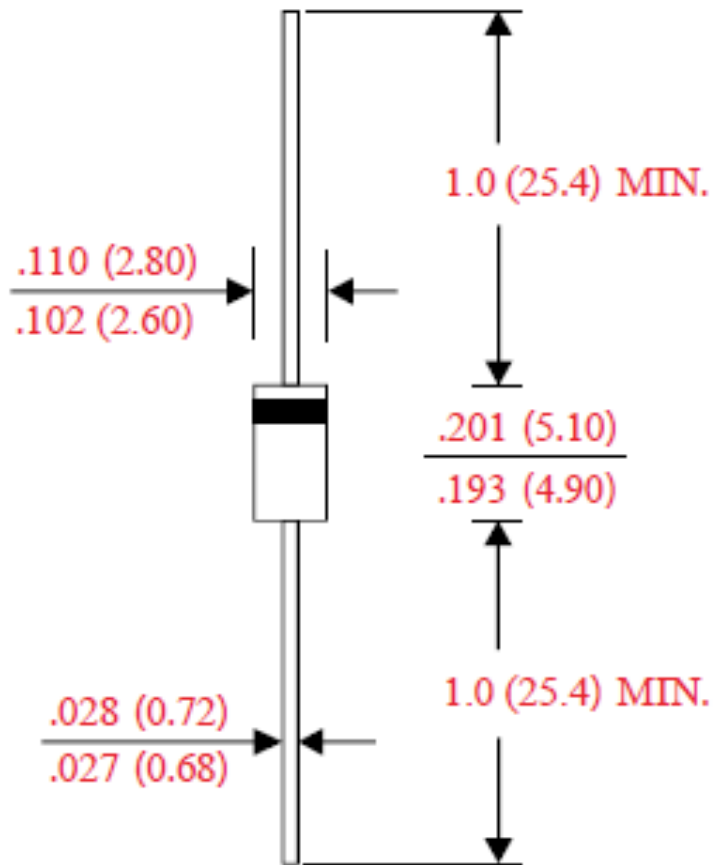


Figure 6. TYPICAL JUNCTION CAPACITANCE

· Package outlines : Dimensions in millimeters



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