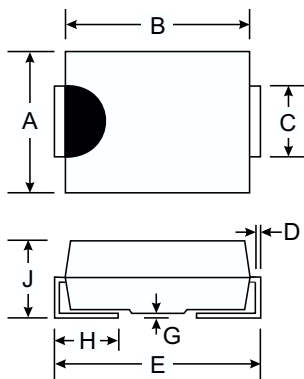


Features

- Glass Passivated Die Construction
- Fast Recovery Time For High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 30A Peak
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- SMA Weight: 0.064 grams (approx.)
- SMB Weight: 0.093 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



	SMA		SMB	
Dim	Min	Max	Min	Max
A	2.29	2.92	3.30	3.94
B	4.00	4.60	4.06	4.57
C	1.27	1.63	1.96	2.21
D	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59
G	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52
J	2.01	2.62	2.00	2.62

A, B, D, G, J, K, M Suffix Designates SMA Package
 AB, BB, DB, GB, JB, KB, MB Suffix Designates SMB Package

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	RS1 A/AB	RS1 B/BB	RS1 D/DB	RS1 G/GB	RS1 J/JB	RS1 K/KB	RS1 M/MB	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _T = 120°C	I _O	1.0							A
Non-Repetitive Peak Forward Surge Current, 8.3ms single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Forward Voltage Drop @ I _F = 1.0A	V _{FM}	1.3							V
Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	I _{RM}	5.0 200							μA
Reverse Recovery Time (Note 3)	t _{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _j	15							pF
Typical Thermal Resistance, Junction to Terminal (Note 1)	R _{θJT}	20							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C

- Notes:
1. Valid provided that terminals are kept at ambient temperature.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.

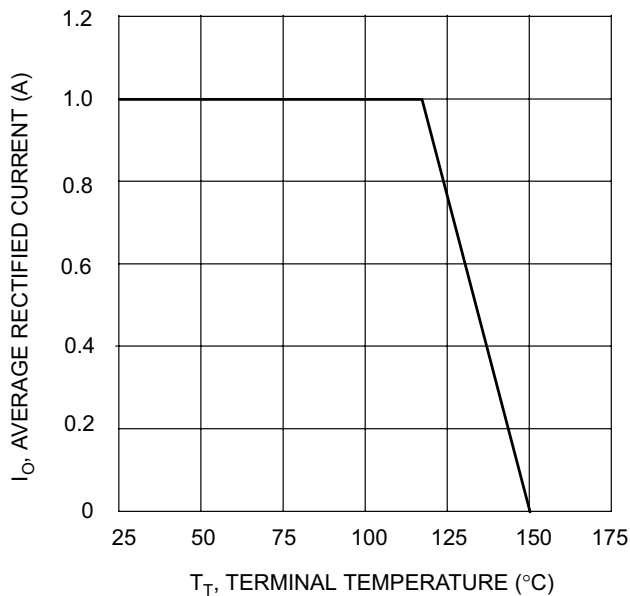


Fig. 1 Forward Current Derating Curve

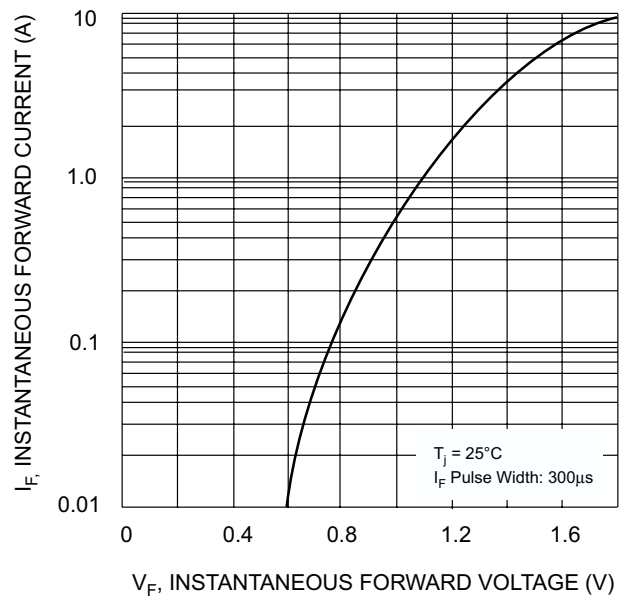


Fig. 2 Typical Forward Characteristics

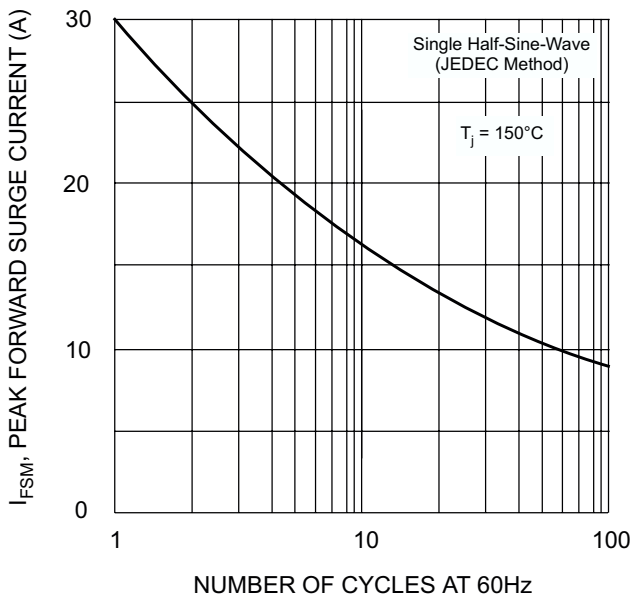


Fig. 3 Forward Surge Current Derating Curve

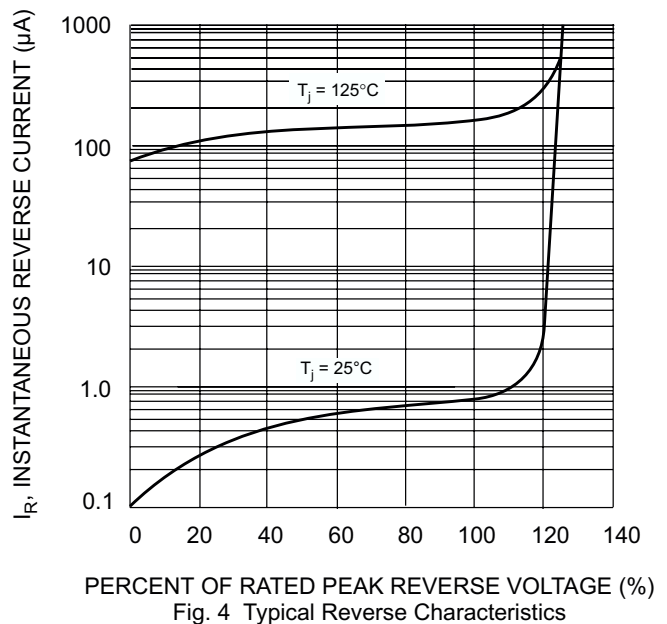
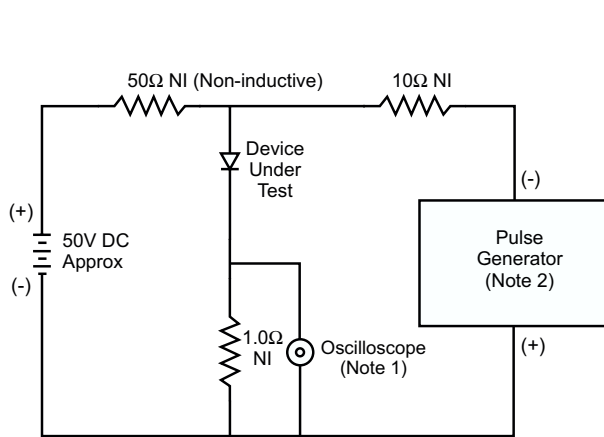
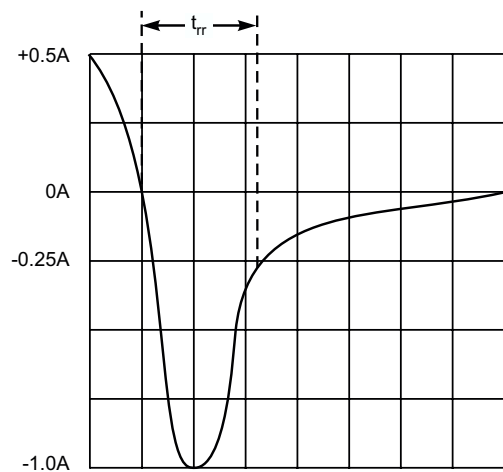


Fig. 4 Typical Reverse Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit