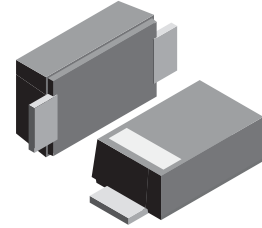


VOLTAGE RANGE: 50-1000V
CURRENT: 5.0 A

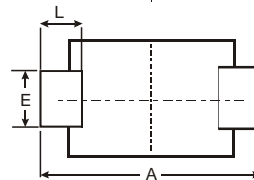
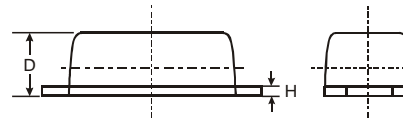
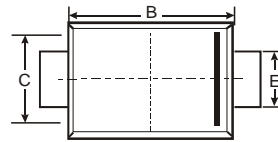
Features

- Glass Passivated Die Construction
- Fast Recovery Time for High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automatic Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: SMBF, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.0018 ounces, 0.05grams



SMBF			
Dim	Min	Max	Typ
A	5.45	5.55	5.50
B	4.27	4.33	4.30
C	3.57	3.63	3.60
D	1.32	1.38	1.35
E	1.96	2.00	1.98
H	0.019	0.021	0.20
L	0.73	0.77	0.75
All Dimensions in mm			

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	FR5AF	FR5BF	FR5DF	FR5GF	FR5JF	FR5KF	FR5MF	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 = 75°C	I _O	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150							A
Forward Voltage @ I _F = 5.0A	V _{FM}	1.3							V
Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	I _{RM}	5.0 100							μA
Maximum Recovery Time (Note 3)	t _{rr}	150			250		500		ns
Typical Junction Capacitance (Note 2)	C _j	78							pF
Typical Thermal Resistance Junction to Terminal (Note 1)	R _{θJT}	50							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C

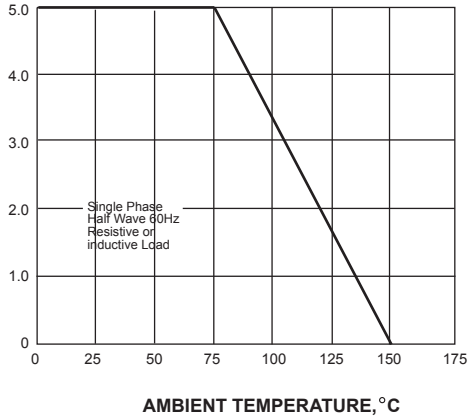
- Notes:
1. Thermal resistance: junction to terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Reverse recovery test conditions: I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.



RATINGS AND CHARACTERISTIC CURVES FR5AF THRU FR5MF

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

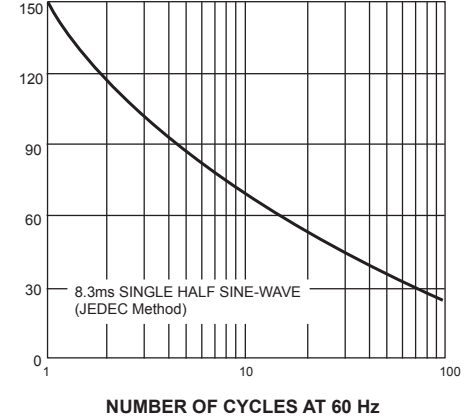


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

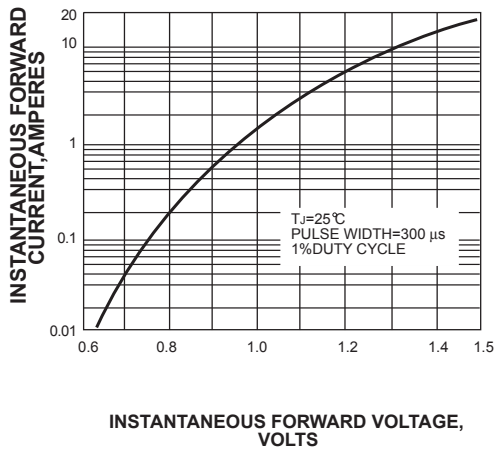
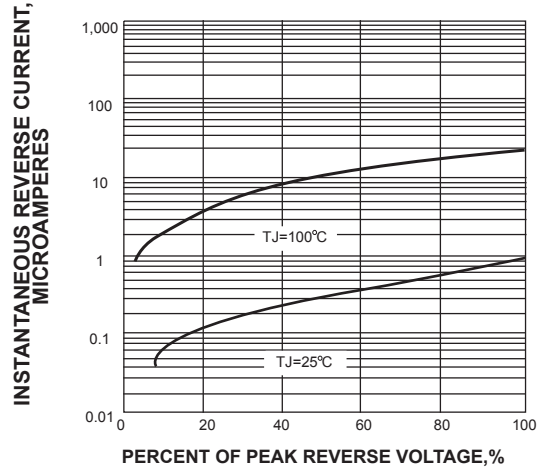
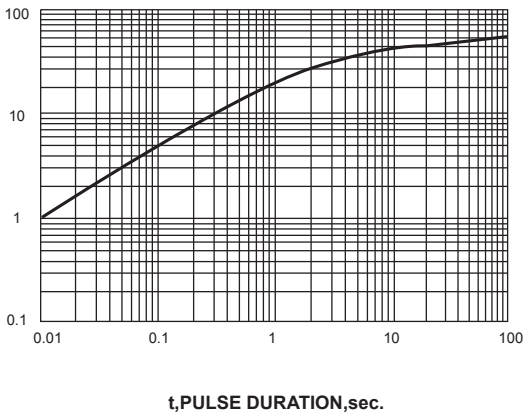


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

