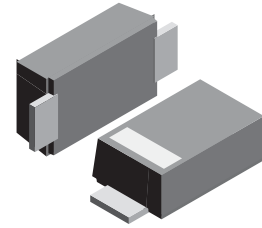


VOLTAGE RANGE: 50 - 1000V
CURRENT: 1.0A

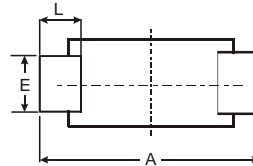
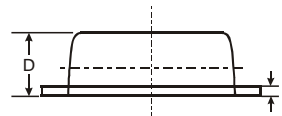
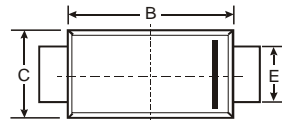


Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
- 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- Case: SOD-123FL
plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
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	DFR1A	DFR1B	DFR1D	DFR1G	DFR1J	DFR1K	DFR1M	Unit
	Marking	F1A	F1B	F1D	F1G	F1J	F1K	F1M	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T _A =65°C (NOTE 1)	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T _L =25°C	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	5.0 100.0							µA
Maximum reverse recovery time (NOTE 2)	t _{rr}	150				250	500		ns
Typical junction capacitance (NOTE 3)	C _J	15							pF
Typical thermal resistance (NOTE 4)	R _{θJA}	180							K/W
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150							°C

- Note:** 1. Averaged over any 20ms period.
 2. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
 3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 4. Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

RATINGS AND CHARACTERISTIC CURVES DFR1A THRU DFR1M

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

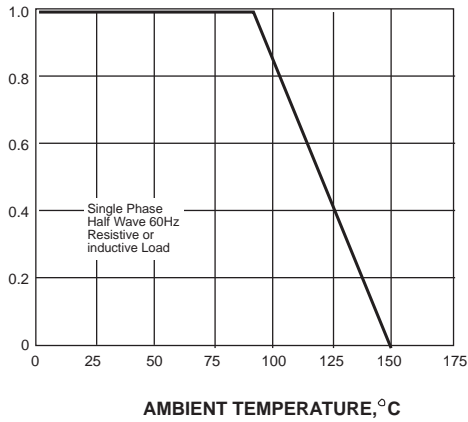


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

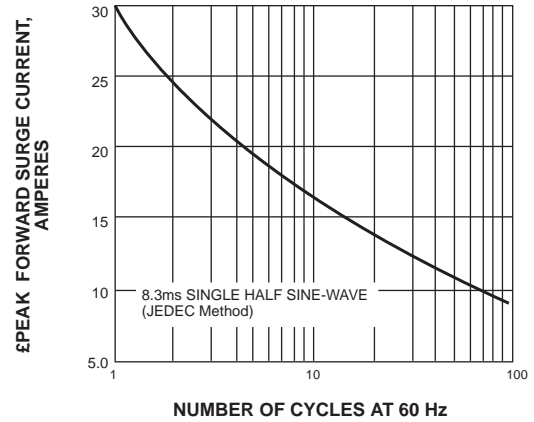


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

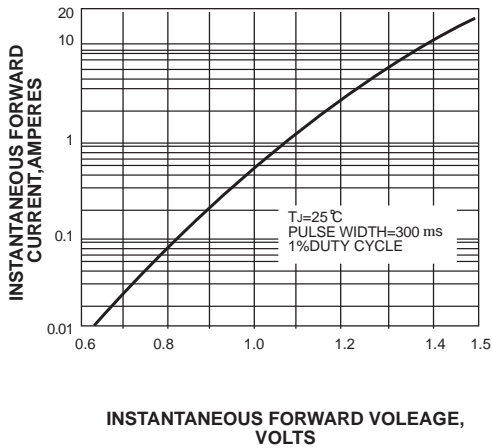


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

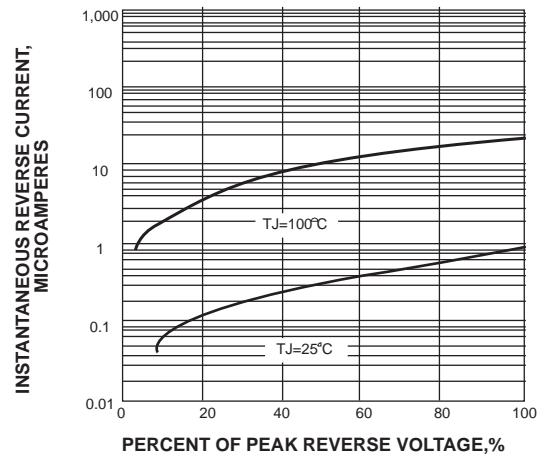


FIG. 5-TYPICAL JUNCTION CAPACITANCE

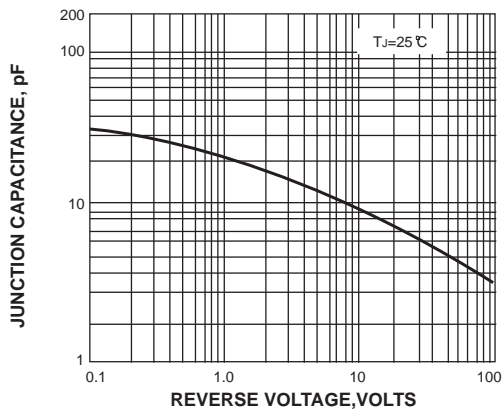


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

