

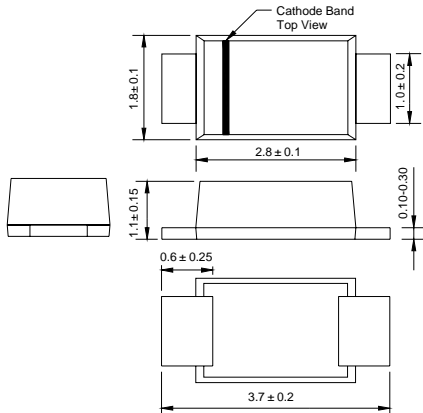


DFR0.5A THRU DFR0.5M

SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current -0.5Ampere

SOD-123FL



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 : JEDEC SOD-123FL molded plastic body over passivated chip
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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	DFR0.5A F05A	DFR0.5B F05B	DFR0.5D F05D	DFR0.5G F05G	DFR0.5J F05J	DFR0.5K F05K	DFR0.5M F05M	UNITS
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 $T_A=65^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	0.5							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	15.0							Amps
Maximum instantaneous forward voltage at 0.5A	V_F	1.3							Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 2)	t_{rr}	150			250		500		ns
Typical junction capacitance (NOTE 3)	C_J	15							pF
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ\text{C}$

- Note:** 1.Averaged over any 20ms period.
 2.Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.
 3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.



RATINGS AND CHARACTERISTIC CURVES DFR0.5A THRU DFR0.5M

Characteristic Curves ($T_A=25$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

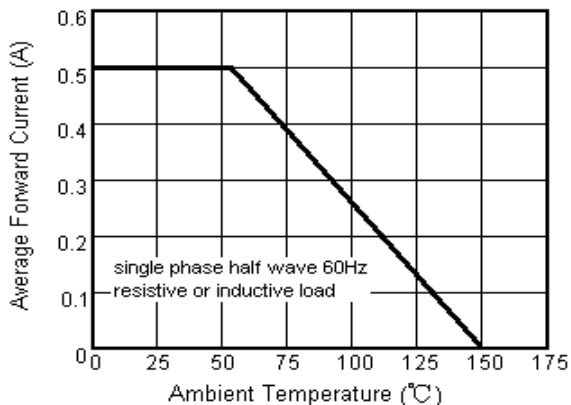


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

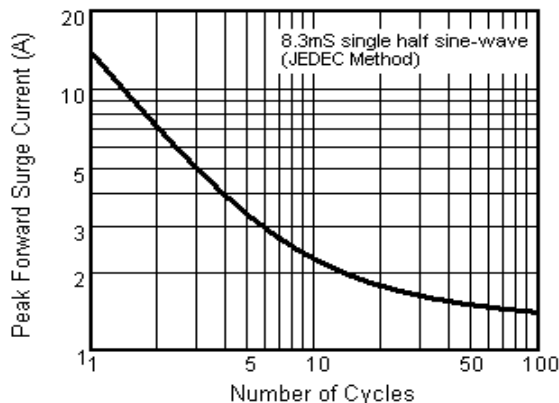


Fig.3 Typical Instantaneous Forward Characteristics

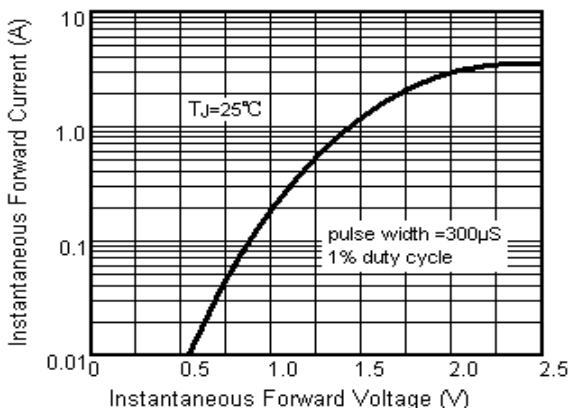


Fig.4 Typical Reverse Characteristics

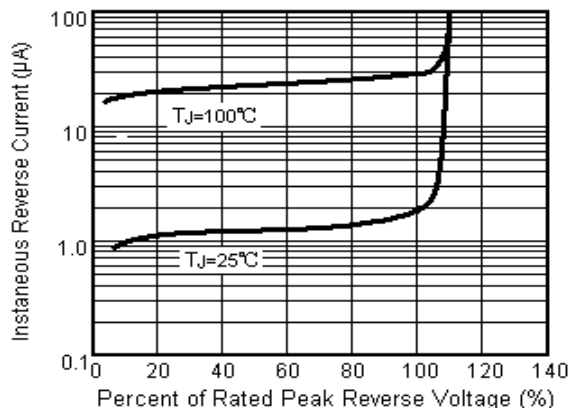
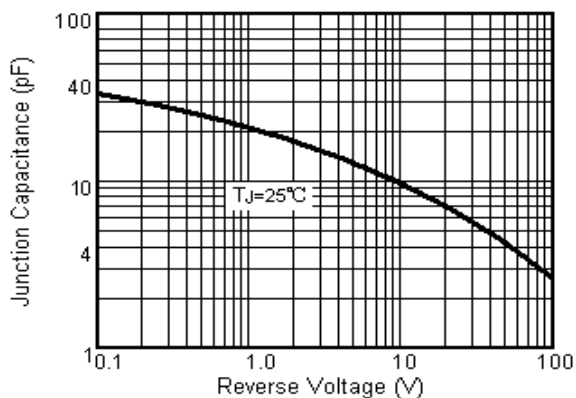


Fig.5 Typical Junction Capacitance



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)

