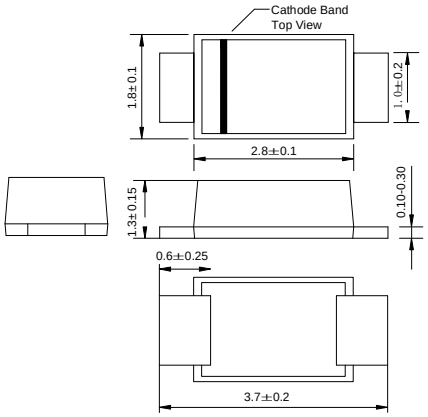
RS1AL THRU RS1ML

SUFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current -1.0Ampere

SOD-123FL



Dimensions in millimeters

FEATURES

- Glass passivated device
- Ideal for surface mouted 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	RS1AL	RS1BL	RS1DL	RS1GL	RS1JL	RS1KL	RS1ML	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 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}	25.0							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=125 C	I_R	5.0 50.0							A
Maximum reverse recovery time (NOTE 2)	trr	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							C

Note: 1.Averaged over any 20ms period.
2.Measured with IF=0.5A, IR=1A, Irr=0.25A.
3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES RS1AL THRU RS1ML

Fig.1 Forward Current Derating Curve

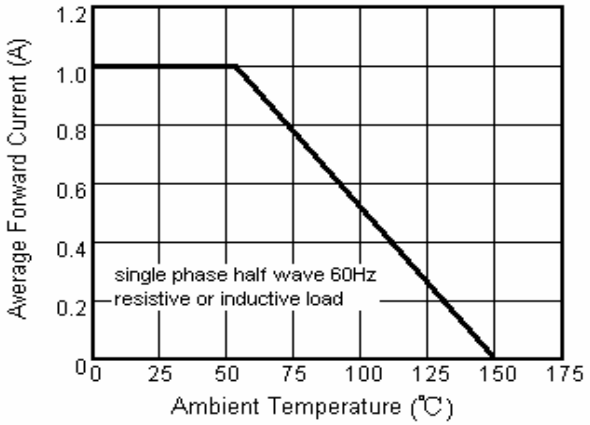


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

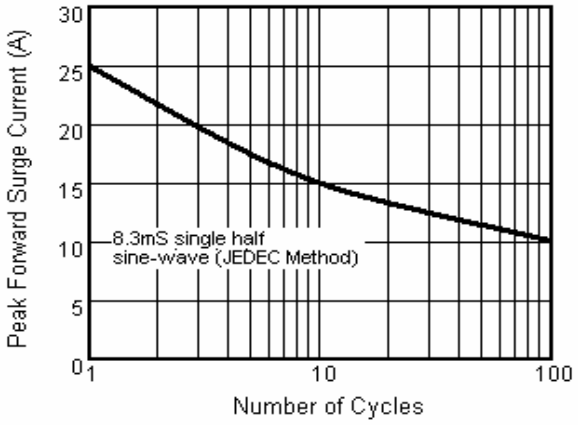


Fig.3 Typical Instantaneous Forward Characteristics

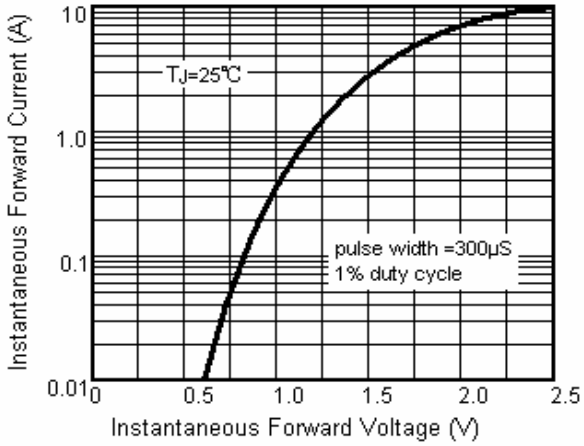


Fig.4 Typical Reverse Characteristics

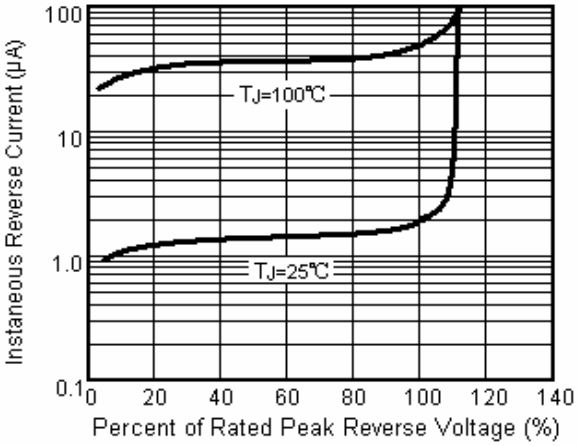


Fig.5 Typical Junction Capacitance