



SURFACE MOUNT FAST RECOVERY RECTIFIER

RS1AFL THRU RS1MFL

Crownpo Technology

Reverse Voltage : 50V to 1000V
Forward Current : 1.0Amp

FEATURES

- *Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- *For surface mounted applications
- * Low profile package
- * Easy pick and place
- * Built-in strain relief
- * Fast Recovery times for high efficiency
- *High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

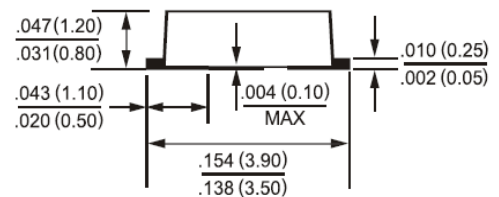
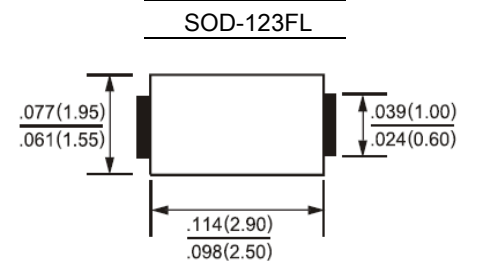
Case : Molded plastic, SOD-123FL

Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed

Polarity : Color band denotes cathode end

Packaging : 8mm tape per EIA STD RS-481

Weight : 0.0006 ounce, 0.018 gram



Dimensions in inches and (millimeters)

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, derate current by 20%.

Parameter	Symbols	RS1AFL	RS1BFL	RS1DFL	RS1GFL	RS1JFL	RS1KFL	RS1MFL	Unit
Marking Code		F1A	F1B	F1D	F1G	F1J	F1K	F1M	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_{TP}=65^{\circ}C$ $T_J=45^{\circ}C$	$I_{F(AV)}$	1.4 (with heatsink)							A
Maximum Forward Voltage at $I_F=0.7A$ $I_F=1.0A$	V_F	1.15 1.30							V
Maximum Reverse Current at $T_A=T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=T_J=100^{\circ}C$	I_R	5.0 100							μA
Typical Junction Capacitance (Note 1)	C_J	10							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	150							$^{\circ}C/W$
Maximum Reverse Recovery Time (Note 3)	T_{RR}	150			250		500		nS
Operating Junction Temperature Range	T_J	-65 to +150							$^{\circ}C$
Storage Temperature Range	T_{stg}	-65 to +150							$^{\circ}C$

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

3- Reverse Recovery Test Conditions : $I_F=0.5A$ · $I_R=1.0A$ · $I_{RR}=0.25A$.



RATINGS AND CHARACTERISTIC CURVES

Fig. 1 — Forward Current Derating Curve

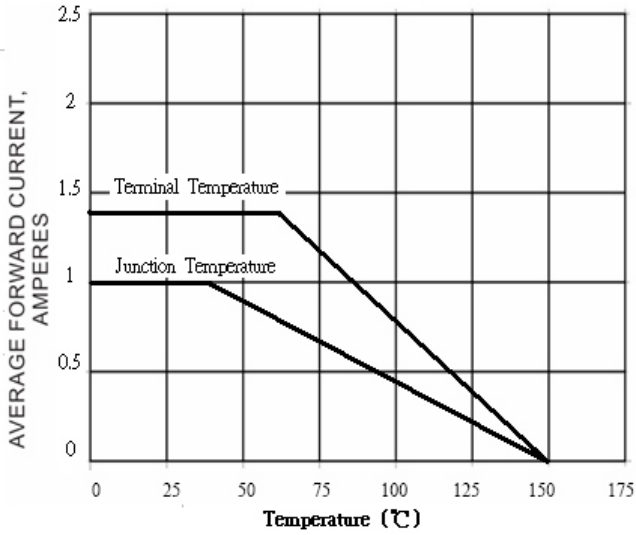


Fig. 2 — Typical Junction Capacitance

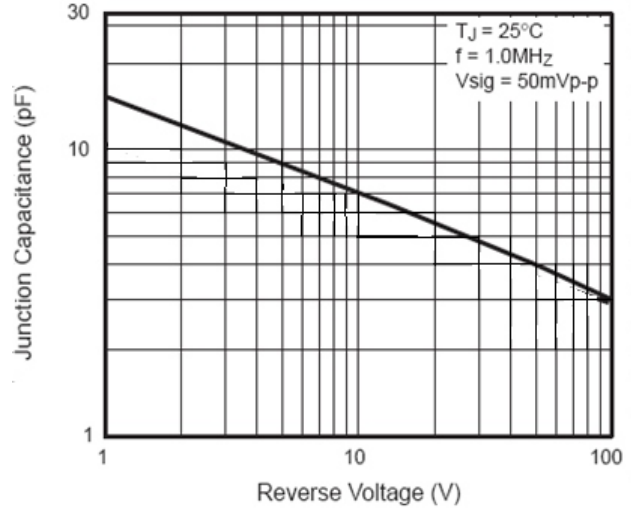


Fig.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

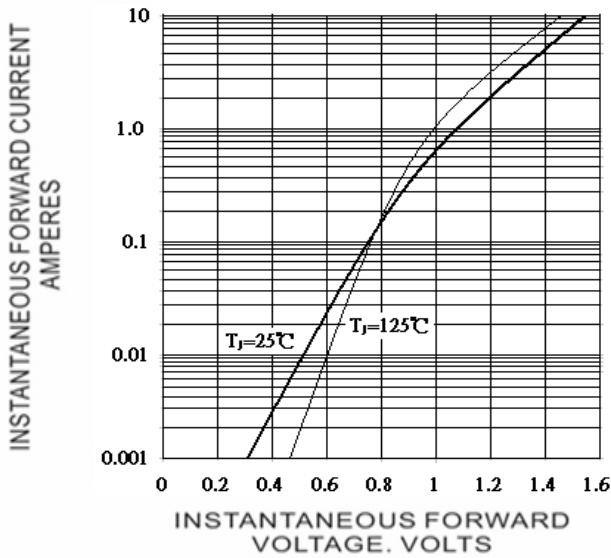


Fig. 4 — Typical Reverse Characteristics

