

RS07A-RS07M

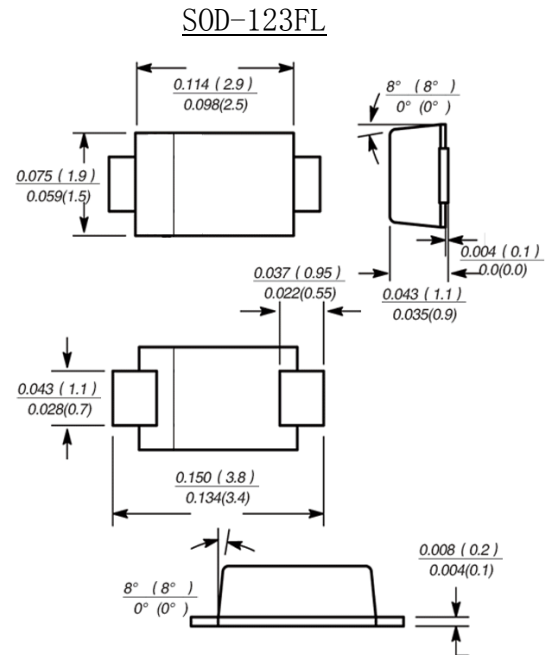
0. 7A SURFACE MOUNT FAST RECOVERY RECTIFIER

Features

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

Mechanical Data

- Terminal: : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Case: : JEDEC SOD-123FL molded plastic body over passivated chip
- Polarity: : Color band denotes cathode end
- Mounting Position: Any



Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	RS07A RA	RS07B RB	RS07D RD	RS07G RG	RS07J RJ	RS07K RK	RS07M RM	UNIT
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 output rectified current at $T_A=65^\circ\text{C}$ (NOTE 1)	$I(AV)$	0.7							A
Peak forward surge current 8.3ms single sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	25							A
Maximum instantaneous forward voltage drop per diode @1.0A	V_F	1.15							V
Maximum DC reverse current at $T_A=25^\circ\text{C}$ rated DC blocking voltage per leg $T_A=125^\circ\text{C}$	I_R	10.0 50.0							μA
Maximum reverse recovery time (NOTE 2)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 3)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	180							K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

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 from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

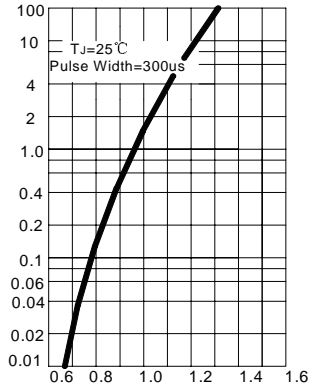


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FIG.1 – TYPICAL FORWARD CHARACTERISTIC

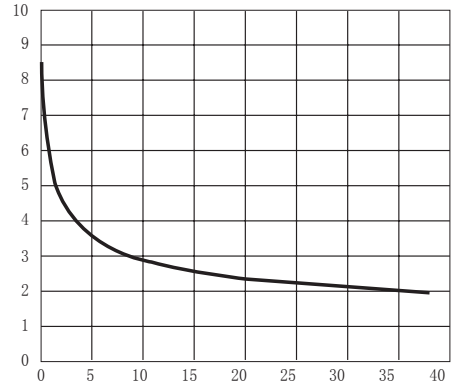
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, V

FIG.2 – TYPICAL JUNCTION CAPACITANCE

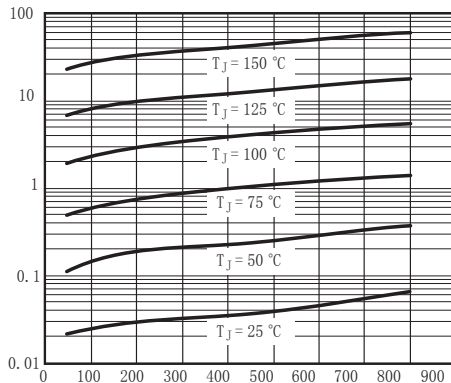
CAPACITANCE, pF



REVERSE VOLTAGE, VOLTS

FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

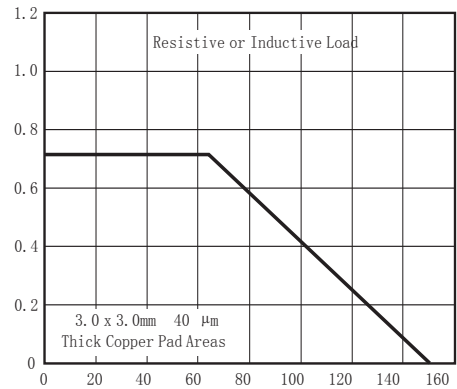
μAMPERES



INSTANTANEOUS REVERSE VOLTAGE, V

FIG.4 – FORWARD DERATING CURVE

AVERAGE FORWARD CURRENT,
AMPERES



AMBIENT TEMPERATURE, °C

