

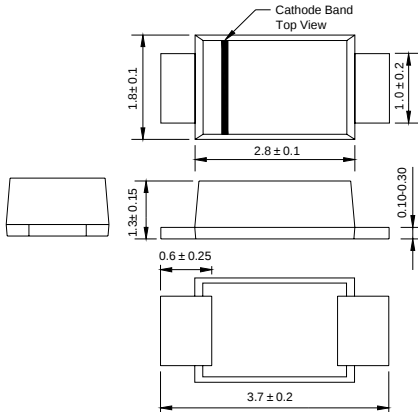


RS07A THRU RS07M

SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 0.7 Ampere

SOD-123FL



Dimensions in millimeters

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: 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	RS07A	RS07B	RS07D	RS07G	RS07J	RS07K	RS07M	UNITS
		F1	F2	F3	F4	F5	F6	F7	
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 TA=65°C (NOTE 1)	I _{AV}	0.7							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=25°C	I _{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 0.7A	V _F	1.15							Volts
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=125°C	I _R	10.0 50.0							μA
Maximum reverse recovery time (NOTE 2)	trr	150				250	500		ns
Typical junction capacitance (NOTE 3)	C _J	4							pF
Typical thermal resistance (NOTE 4)	RθJA	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 $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

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 RS07A THRU RS07M

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

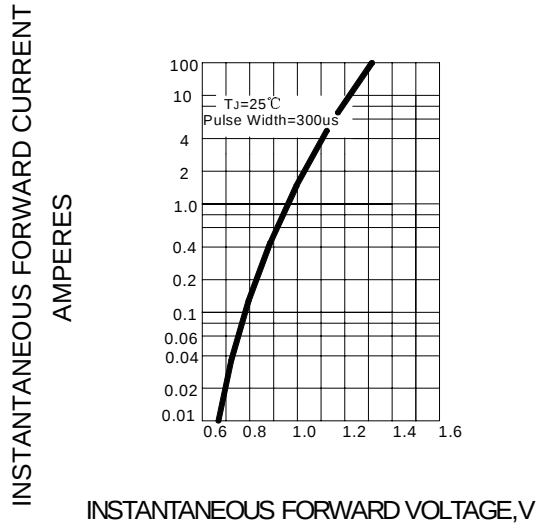


FIG.2 – TYPICAL JUNCTION CAPACITANCE

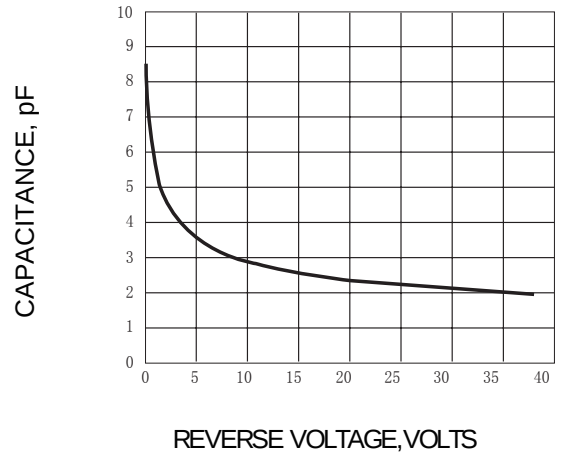


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

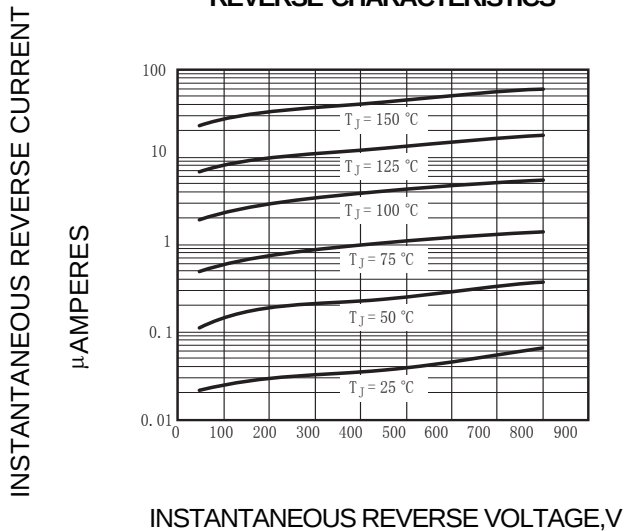


FIG.4 – FORWARD DERATING CURVE

