RS07A THRU RS07M

1.0 AMP. SURFACE MOUNT GENERAL PURPOSE FAST RECOVERY RECTIFIERS

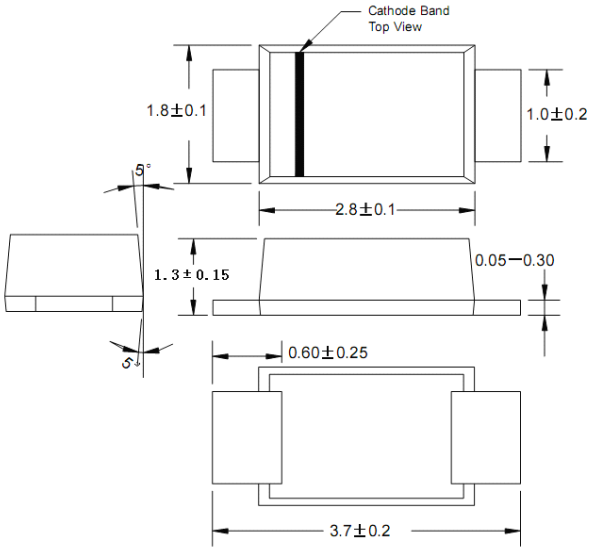
FEATURES

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 250℃/10 seconds at terminals.

MECHANICAL DATA

- Case: JEDEC SOD-123FL,molded plastic over passivated chip
- Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram
- Mounting position: Any

SOD-123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRONICAL CHARACTERISTICS

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

Type Number	SYMBOL	RS07A	RS07B	RS07D	RS07G	RS07J	RS07K	RS07M	units
	marking	RA	RB	RD	RG	RJ	RK	RM	
Maximum Recurrent 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 at T_A =65°C (Note 1)	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	25							A
Maximum Instantaneous forward Voltage at 0.7A DC	V_F	1.3							V
Maximum DC Reverse Current @T_A =25°C	I_R	10							μA
at rated DC blocking voltage @T_A =125°C		50.0							
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 4)	$R_{(JA)}$	180							°C /W
Storage Temperature Range	T_{STG}	-55 to +150							°C
Operation Temperature Range	T_J	-55 to +150							°C

Note: 1. Averaged over any 20 ms period.
2.Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
3. Measured at 1MHz and applied reverse voltage of 4.0 volts d.c.
4. Measured on P.C.Board with 0.2×0.2”(5.0×5.0mm)Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (RS07A THRU RS07M)

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

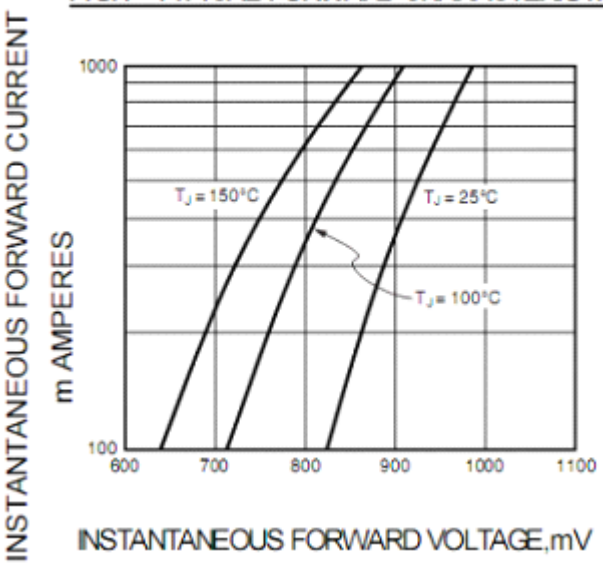


FIG.2 – TYPICAL JUNCTION CAPACITANCE

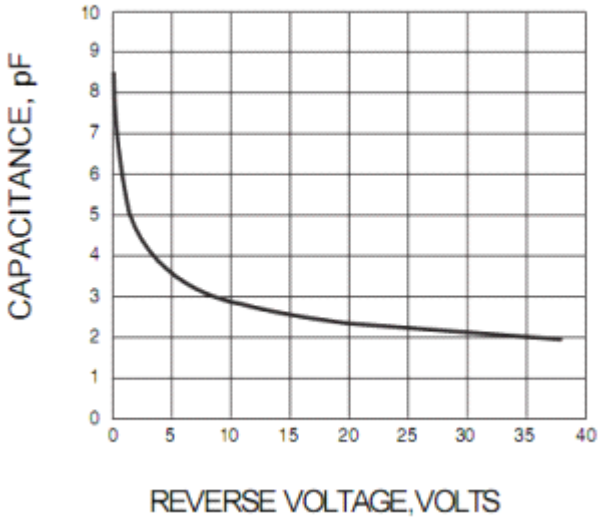


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

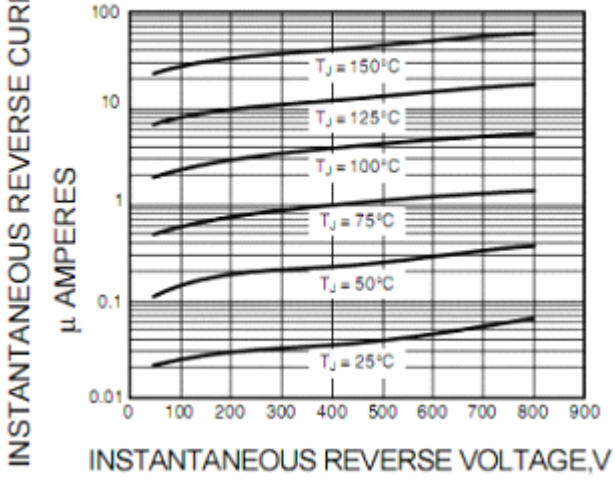


FIG.4 – FORWARD DERATING CURVE

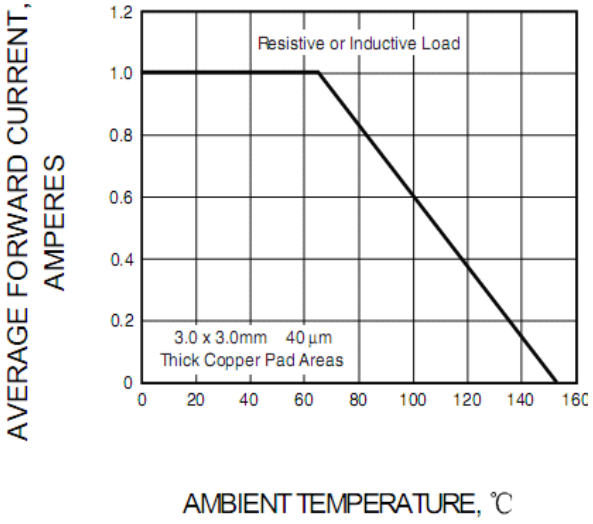


FIG.5-- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM