

US07A THRU US07M

1.0 AMP. SURFACE MOUNT GENERAL PURPOSE ULTRA FAST RECTIFIERS

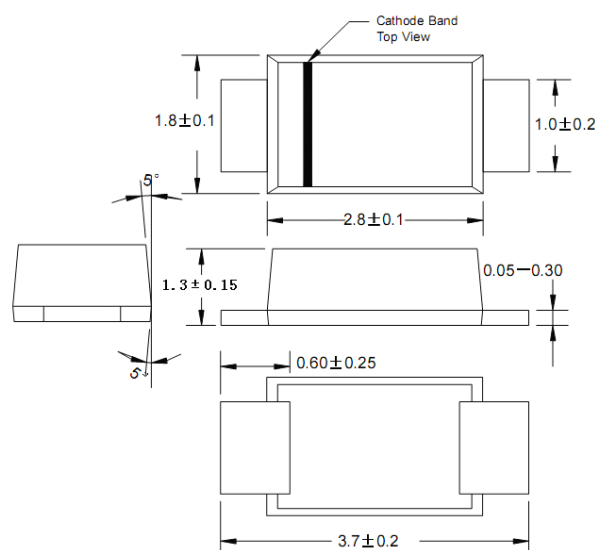
FEATURES

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- Superfast recovery time for high efficiency
- High temperature soldering guaranteed:
250°C/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 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%.

Type Number	SYM BOL	US07A	US07B	US07D	US07G	US07J	US07K	US07M	units
	marking	UA	UB	UD	UG	UJ	UK	UM	
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 $T_A=65^{\circ}C$ (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	1.0			1.3		1.7		V
Maximum DC Reverse Current @ $T_A=25^{\circ}C$ at rated DC blocking voltage @ $T_A=125^{\circ}C$	I_R	5.0							μA
		100.0							
Maximum Reverse Recovery Time (Note 2)	t_{rr}	50				75			nS
Typical Junction Capacitance (Note 3)	C_J	20				15			pF
Typical thermal resistance (Note 4)	$R_{(JA)}$	180							$^{\circ}C/W$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}C$
Operation Temperature Range	T_J	-55 to +150							$^{\circ}C$

- 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 (US07A THRU US07M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

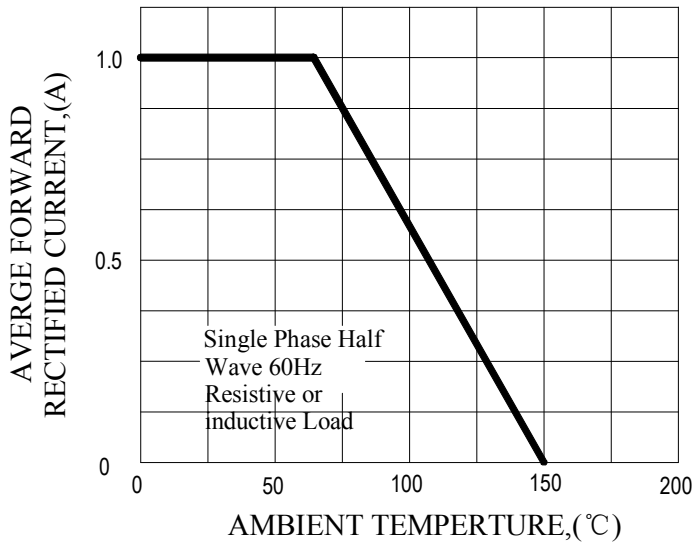


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

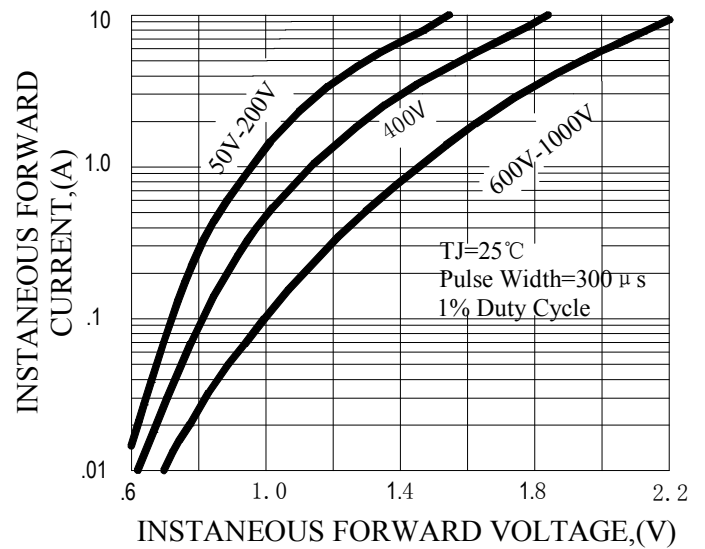


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

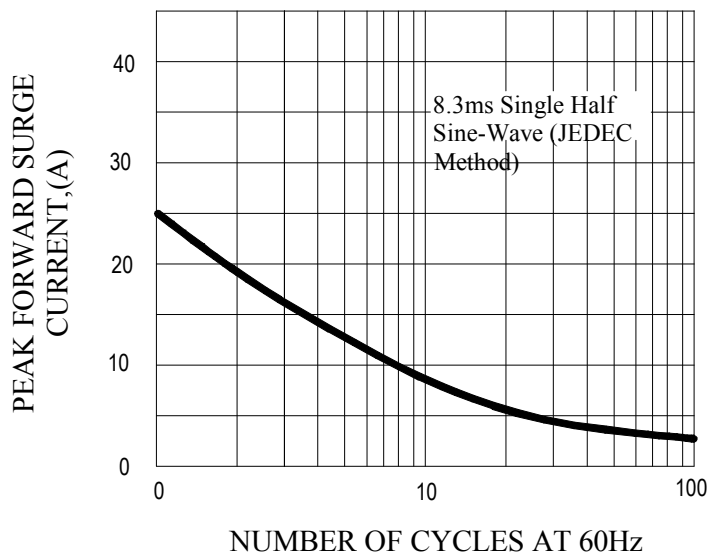


FIG.4-TYPICAL REVERSE CHARACTERISTICS

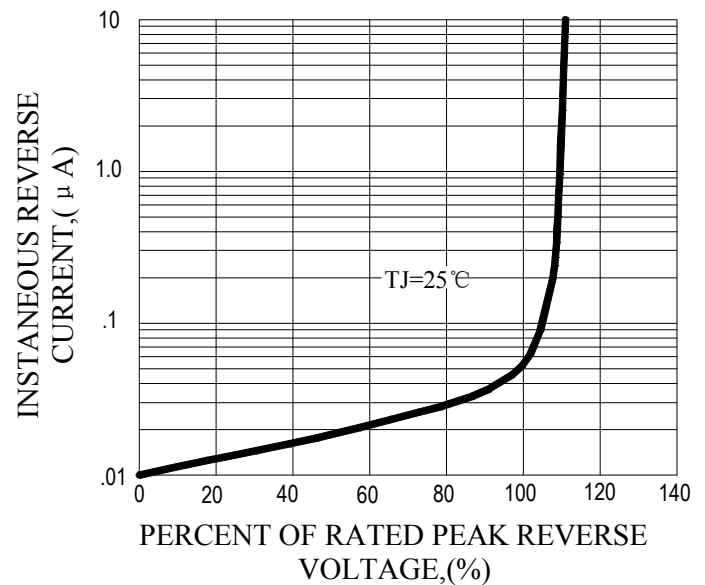


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

