

**I. General Purpose Rectifier**

**1.0A Surface Mount Silicon Rectifier  
S07A~S07M**

**(Package: SOD-123)**

<p><b><u>FEATURES</u></b></p> <ul style="list-style-type: none"> <li>• Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing flame retardant epoxy moulding compound</li> <li>• For surface mounted applications</li> <li>• Exceeds environmental standards of MIL-S-19500 / 228</li> <li>• Low Leakage current</li> </ul> <p><b><u>MECHANICAL DATA</u></b></p> <ul style="list-style-type: none"> <li>• Case : Molded plastic, JEDEC SOD-123 / Mini SMA</li> <li>• Terminals : Solder plated, solderable per MIL-STD-750, Method 2026</li> <li>• Mounting Position : Any</li> <li>• Weight : 0.04 grams</li> </ul>	<p>Case: SOD-123 Dimensions in inches and (millimeters)</p>
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**Ratings & Electrical Characteristics**

Ratings	Symbol	S07A	S07B	S07D	S07G	S07J	S07K	S07M	Units
Maximum recurrent 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 $T_L=75$	$I_O$	1.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25							Amps
Maximum instantaneous forward voltage at $I_O$ DC	$V_F$	1.1							Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 125$	$I_R$	5.0 50.0							$\mu A$
Typical reverse recovery time (Note 1)	$T_{rr}$	1.8							$\mu s$
Typical junction capacitance (Note 2)	$C_j$	4.0							pF
Operating junction and storage temperature range	$T_j, T_{stg}$	-55 to +150							

Note:  
 1. Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$   
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

# Ratings and Characteristic Curves of S07A~S07M

FIG. 1 - FORWARD CURRENT DERATING CURVE

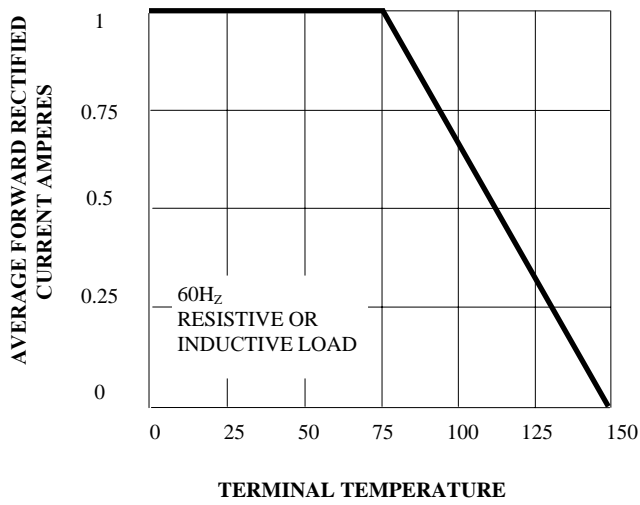


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

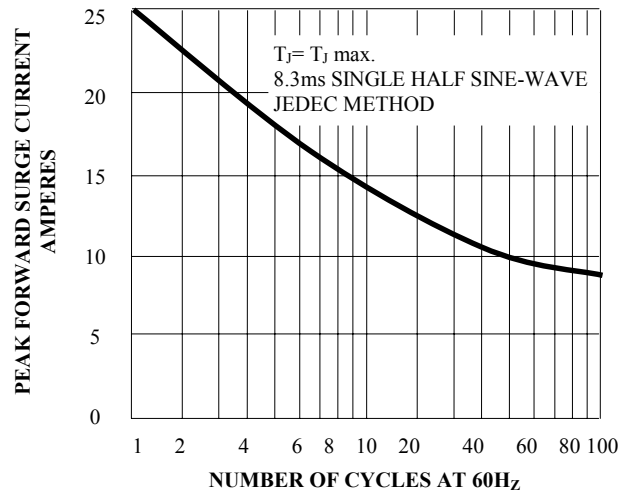


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

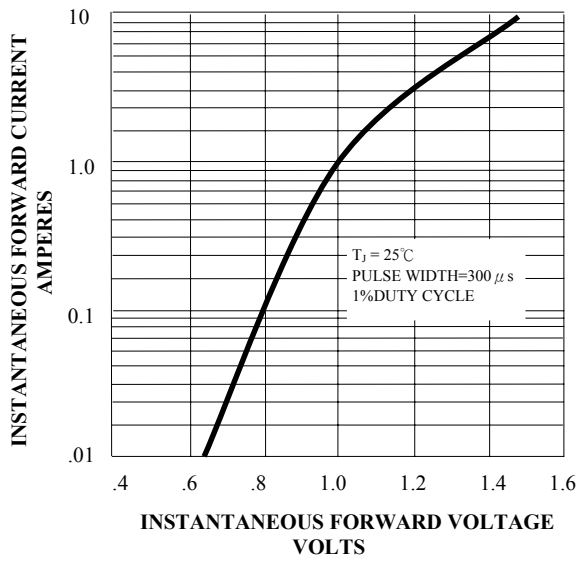


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

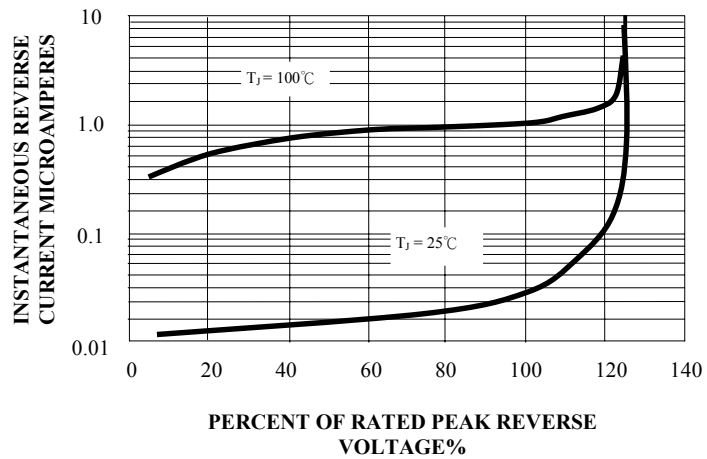


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

