

### GENERAL PURPOSE SILICON RECTIFIER

<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Low cost construction</li> <li>• Low forward voltage drop</li> <li>• Low reverse leakage</li> <li>• High forward surge current capability</li> <li>• High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead length at 5 lbs (2,3kg) tension</li> </ul>		<b>VOLTAGE RANGE</b> 200 to 1300 Volts <b>CURRENT</b> 3.0 Amperes					DO-27	
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• <b>Case:</b> Transfer molded plastic</li> <li>• <b>Epoxy:</b> UL94V-0 rate flame retardant</li> <li>• <b>Polarity:</b> Color band denotes cathode end</li> <li>• <b>Lead:</b> Plated axial lead, solderable per MIL-STD-202E method 208C</li> <li>• <b>Mounting position:</b> Any</li> <li>• <b>Weight:</b> 0.042 ounce, 1.19 grams</li> </ul>		Dimensions in inches and (millimeters)						
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> 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%.								
	<b>SYMBOLS</b>	<b>BY 251</b>	<b>BY 252</b>	<b>BY 253</b>	<b>BY 254</b>	<b>BY 255</b>	<b>UNITS</b>	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1300	Volts	
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	910	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1300	Volts	
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=75^\circ C$	$I_{(AV)}$	3.0					Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150					Amps	
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.1					Volts	
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	$T_A=25^\circ C$					10	$\mu$ Amps
		$T_A=150^\circ C$					500	
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L=105^\circ C$	$I_{R(AV)}$	500					$\mu$ Amps	
Typical Junction Capacitance(NOTE1)	$C_J$	40					pF	
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	30					$^\circ C/W$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175					$^\circ C$	
<b>NOTES:</b> 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts. 2. Thermal Resistance from Junction to Ambient at 0.5" (12.5mm) lead length, P.C. board mounted with 0.8" X 0.8" (20X20mm) copper heatsink.								

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

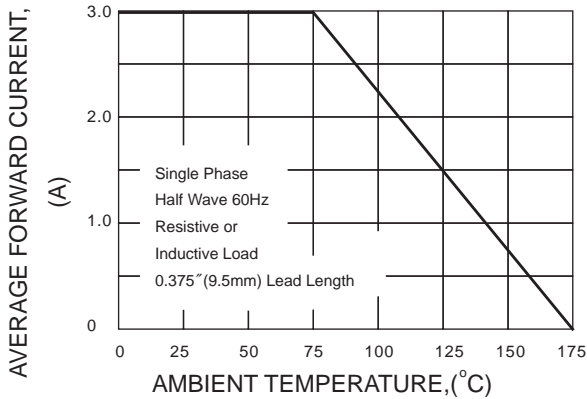


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

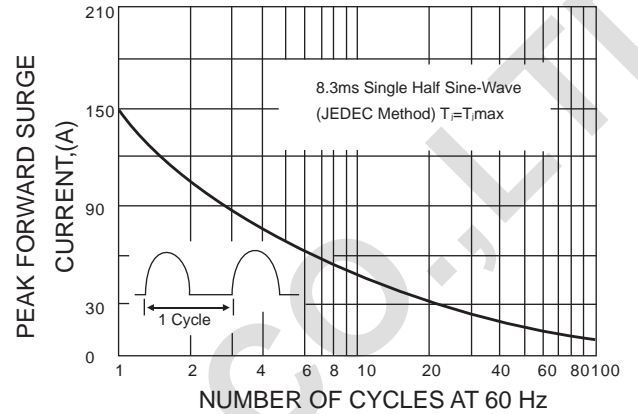


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

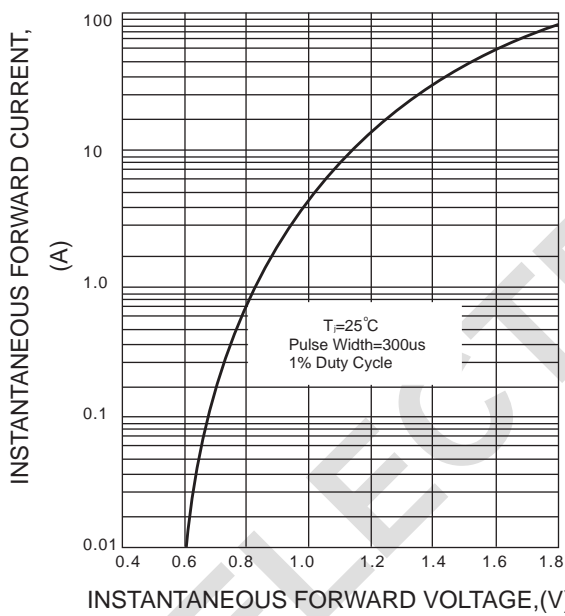


FIG.4-TYPICAL REVERSE CHARACTERISTICS

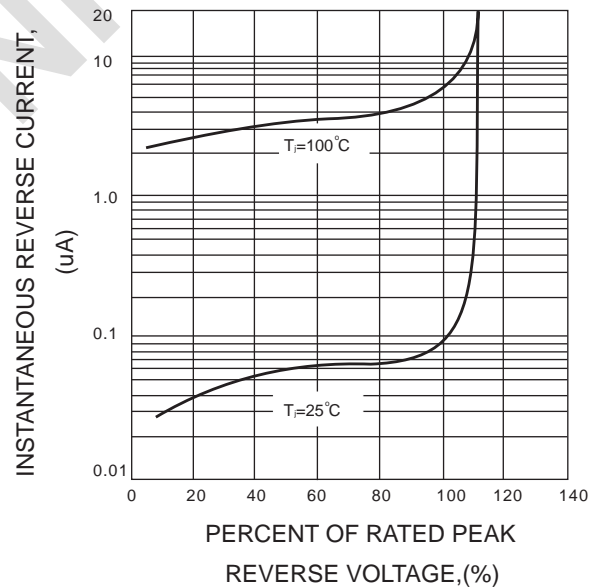


FIG.5-TYPICAL JUNCTION CAPACITANCE

