

GENERAL PURPOSE SILICON RECTIFIER

FEATURES		VOLTAGE RANGE		CURRENT		50 to 1000 Volts		3.0 Ampere	
<ul style="list-style-type: none"> • Low cost construction • Low forward voltage drop • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead length at 5 lbs (2,3kg) tension 									
<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: Transfer molded plastic • Epoxy: UL94V-0 rate flame retardant • Polarity: Color band denotes cathode end • Lead: Plated axial lead, solderable per MIL-STD-202E method 208C • Mounting position: Any • Weight: 0.042 ounce, 1.19 grams 									
								DO-27	
						<p>Dimensions in inches and (millimeters)</p>			
<p>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</p> <p>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%.</p>									
	SYMBOLS	IN 5400	IN 5401	IN 5402	IN 5404	IN 5406	IN 5407	IN 5408	UNITS
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 0.5" (12.5mm) lead length at $T_L=105^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	10							μAmps
	$T_A=150^\circ\text{C}$	500							
Maximum Full Load Reverse Current, full cycle average 0.5" (12.5mm) lead length at $T_L=105^\circ\text{C}$	$I_{R(AV)}$	500							μAmps
Typical Junction Capacitance(NOTE1)	C_J	40							pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$
<p>NOTES:</p> <p>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" (20.0X20.0mm) copper heatsink.</p>									

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

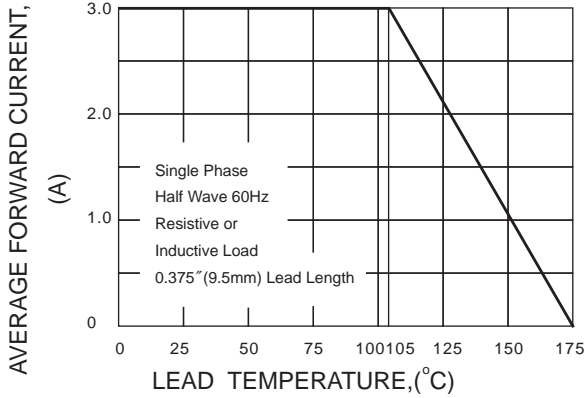


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

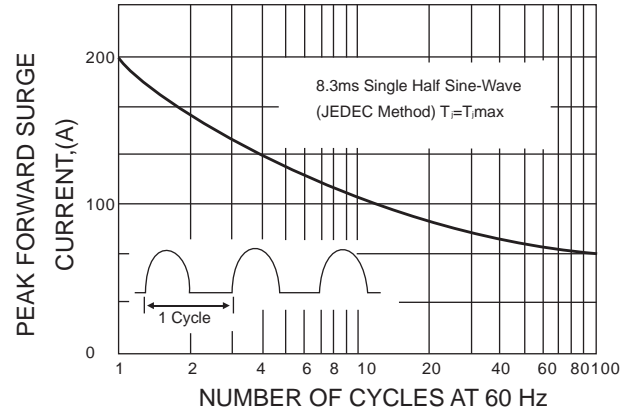


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

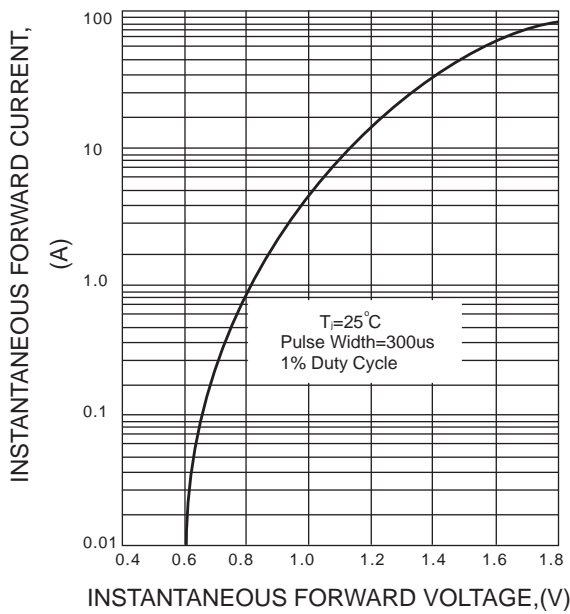


FIG.4-TYPICAL REVERSE CHARACTERISTICS

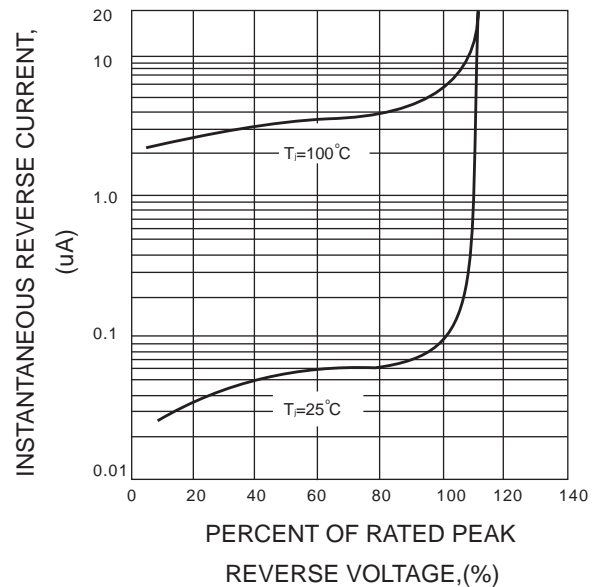


FIG.5-TYPICAL JUNCTION CAPACITANCE

