

GENERAL PURPOSE SILICON RECTIFIER

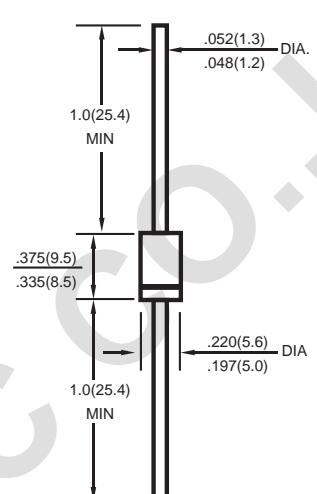
FEATURES <ul style="list-style-type: none"> • Low cost construction • Low forward voltage drop • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead length at 5 lbs (2,3kg) tension 		VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Ampere								
MECHANICAL DATA <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 		 <p style="text-align: right;">DO-27</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>								
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%.										
	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 $T_L=105^\circ C$		$I_{(AV)}$	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	$T_A=25^\circ C$	I_R	10							μ Amps
	$T_A=150^\circ C$		500							
Maximum Full Load Reverse Current, full cycle average 0.5" (12.5mm) lead length at $T_L=105^\circ C$		$I_{R(AV)}$	500							μ 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							$^\circ C$
NOTES: 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.										

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

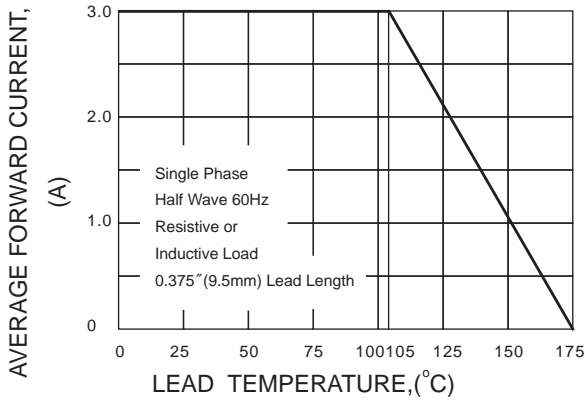


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

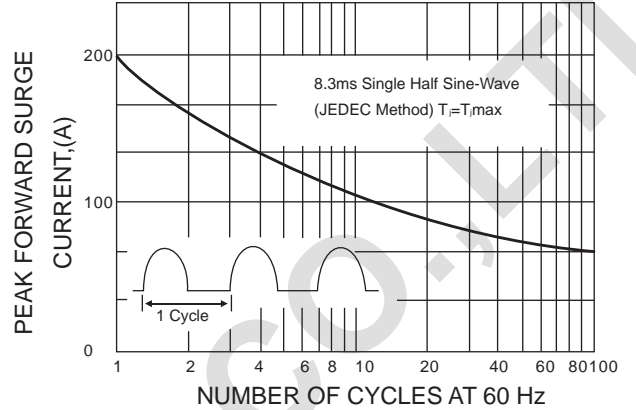


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

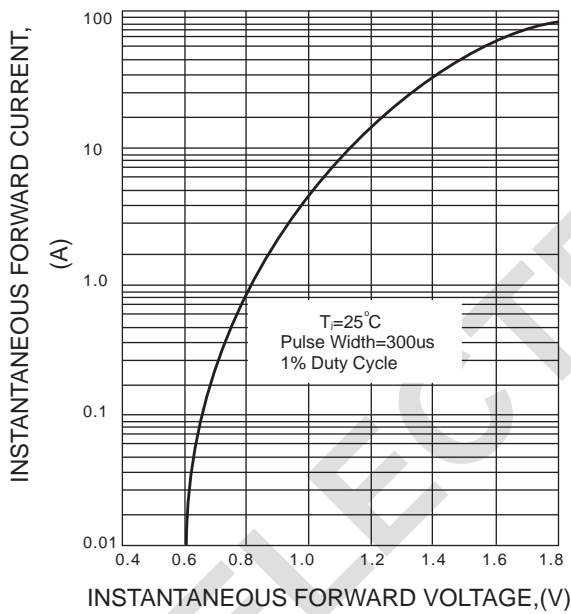


FIG.4-TYPICAL REVERSE CHARACTERISTICS

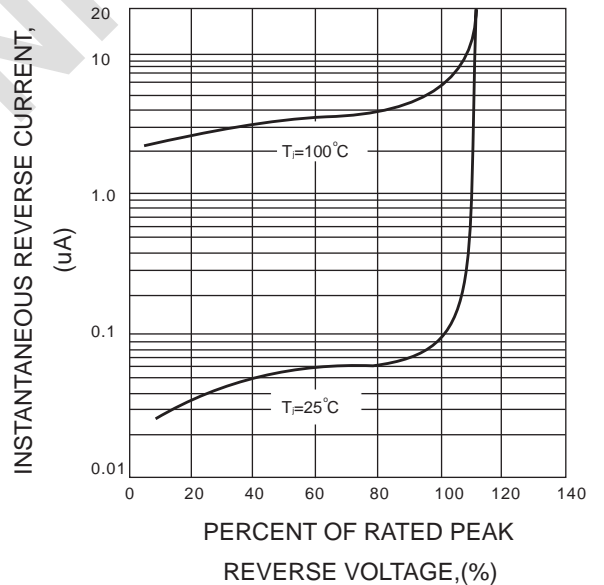


FIG.5-TYPICAL JUNCTION CAPACITANCE

