

GENERAL PURPOSE SILICON RECTIFIER

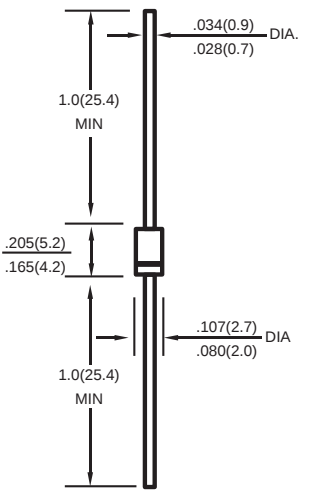
FEATURES		VOLTAGE RANGE CURRENT		50 to 1000 Volts 1.0 Ampere					
• Low cost construction • Low forward voltage drop • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm)lead length at 5 lbs (2,3kg) tension						DO-41			
MECHANICAL DATA									
• 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: 0.012 ounce,0.33 gram				Dimensions in inches and (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%.									
	SYMBOLS	IN 4001	IN 4002	IN 4003	IN 4004	IN 4005	IN 4006	IN 4007	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 0.375" (9.5mm) lead length at T _A =75°C	I _(AV)	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V _F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	5.0							μAmps
	T _A =100°C	50							
Maximum Full Load Reverse Current,full cycle average 0.375" (9.5mm) lead length at T _L =75°C	I _{R(AV)}	30							μAmps
Typical Junction Capacitance(NOTE1)	C _J	15							pF
Typical Thermal Resistance(NOTE2)	R _{θJA}	50							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-65 to +175							°C
NOTES:									
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.									
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length,P.C.board mounted with 0.2" X0.2" (5.0X5.0mm)copper pads.									

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

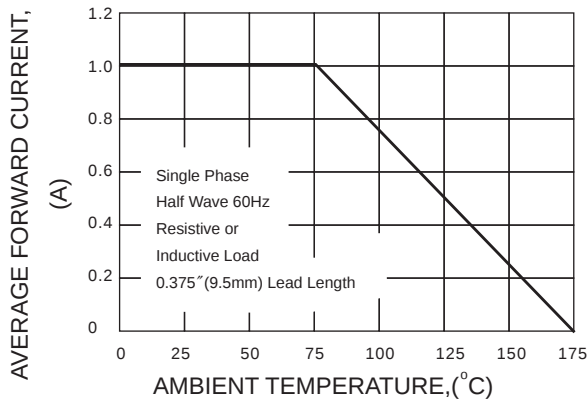


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

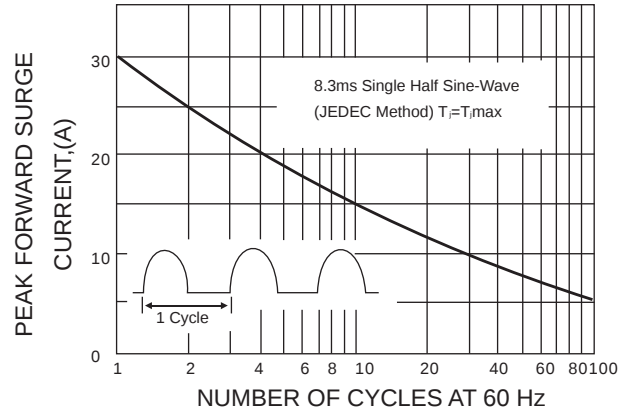


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

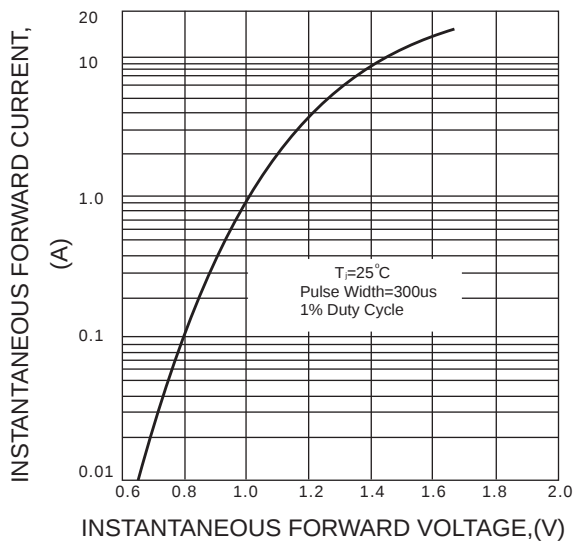


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

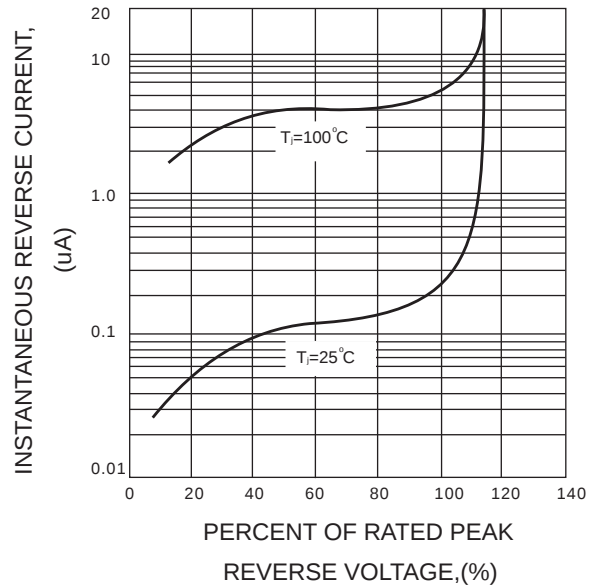


FIG.5-TYPICAL JUNCTION CAPACITANCE

