WILLAS

RoHS COMPLIANT

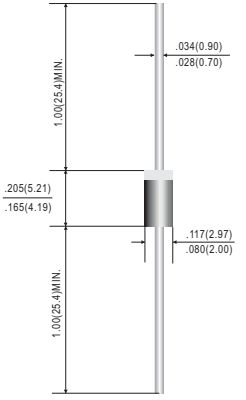
1.0A AXIAL SILICON RECTIFIERS - 50V- 1000V
DO-41 PACKAGE

1N4001 THRU 1N4007

FEATURES
* Low cost
* Low leakage
* Low forward voltage drop
* High current capability
* RoHS product for packing code suffix "G", Halogen free product for packing code suffix "H".
* Moisture Sensitivity Level 1

MECHANICAL DATA
* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208G guaranteed
* Mounting position: Any
* Weight: Approximate 0.33 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	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_A = 75°C	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Typical Junction Capacitance (Note1)	C_J	15							pF
Typical Thermal Resistance	$R_{\theta JA}$ / $R_{\theta JC}$	50 / 18							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	5.0							uAmps
	@T_A = 100°C		50							
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at T_L = 75°C			30							uAmps
Maximum Reverse Recovery Time (Note 2)		Trr	2							us

NOTES: 1.Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

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RATING AND CHARACTERISTIC CURVES (1N4001 THRU 1N4007)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

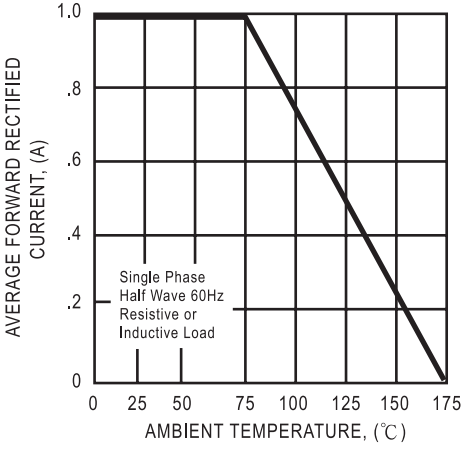


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

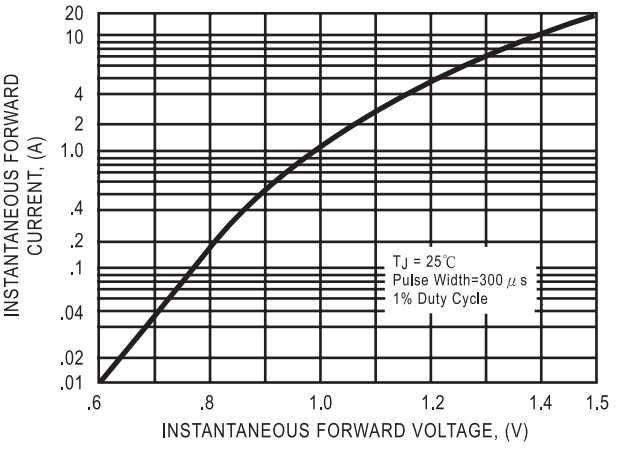


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

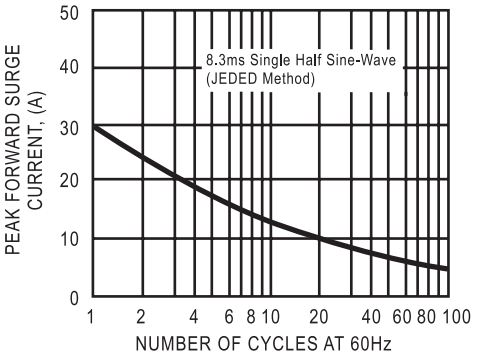


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

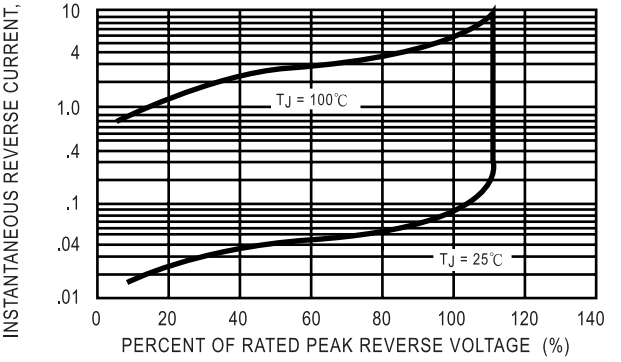
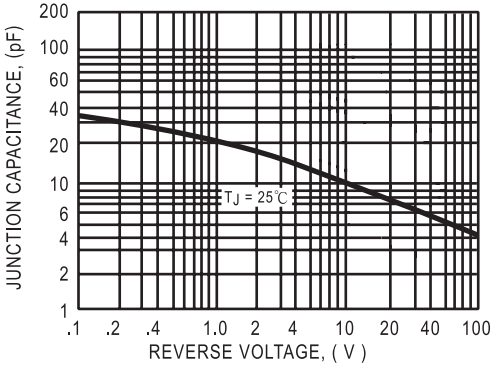


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information:

Device PN	Packing
Part Number -E(1)G(2)-WS	Tape Pitch:26.0±0.5mm & Ammo Packing:3Kpcs/box
Part Number -F(1)G(2)-WS	Tape Pitch 52.4±0.5mm,& Ammo Packing:3Kpcs/box
Part Number -B(1)G(2)-WS	Bulk Packing: 1Kpcs/Box

Note: 1. Packing code, E, F Tape pitch specifications & Ammo Packing; B: Bulk Packing.

2. RoHS product for packing code suffix ”G”, Halogen free product for packing code suffix "H" .

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