

UG1A THRU UG1D

**ULTRAFAST EFFICIENT
PLASTIC SILICON RECTIFIER**
VOLTAGE: 50 TO 200V CURRENT: 1.0A



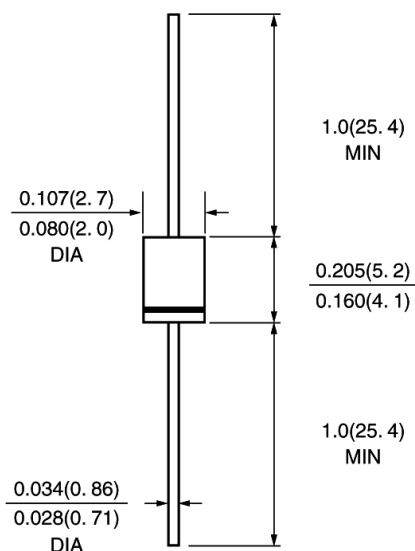
FEATURE

Low power loss
High surge capability
Glass passivated chip junction
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250°C/10sec/0.375" lead length at 5 lbs tension

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO -41\DO-204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	UG 1A	UG 1B	UG 1C	UG 1D	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	150	200	V
Maximum RMS Voltage	V _{rms}	35	70	105	140	V
Maximum DC blocking Voltage	V _{dc}	50	100	150	200	V
Maximum Average Forward Rectified Current 3/8" lead length at T _a =75°C	I _{f(av)}	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	40.0				A
Maximum Forward Voltage at Forward current 1A Peak	V _f	0.95				V
Maximum DC Reverse Current T _a =25°C at rated DC blocking voltage T _a =125°C	I _r	5.0 200.0				μ A μ A
Maximum Reverse Recovery Time (Note 1)	T _{rr}	15				nS
Typical Junction Capacitance (Note 2)	C _j	7.0				pF
Typical Thermal Resistance (Note 3)	R(ja)	60.0				°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-55 to +150				°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0V_{dc}
- Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

FIG. 1 - FORWARD CURRENT DERATING CURVES

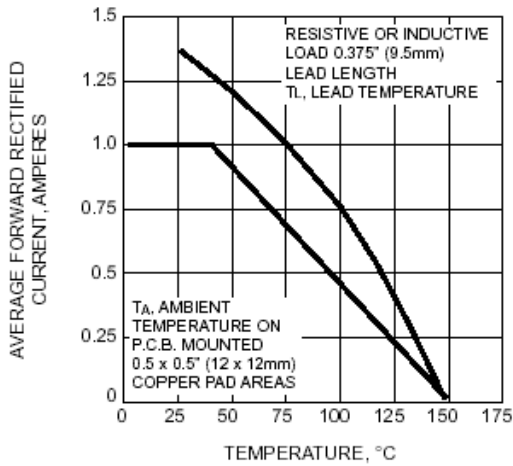


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

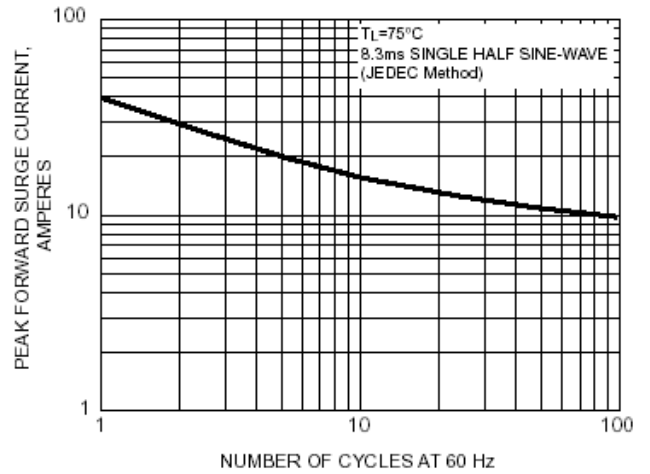


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

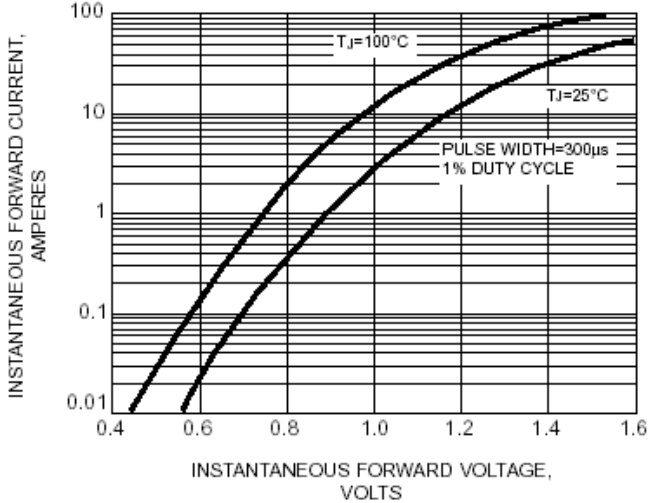


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

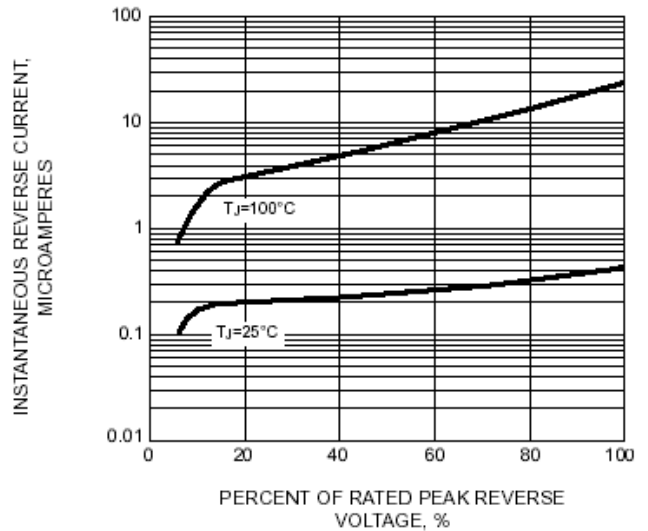


FIG. 5 - REVERSE SWITCHING CHARACTERISTICS

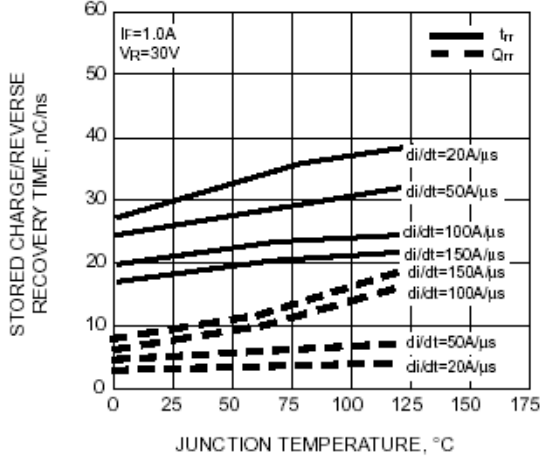


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

