1N4942GP THRU 1N4948GP

SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER
VOLTAGE:200 TO 1000V CURRENT: 1.0A

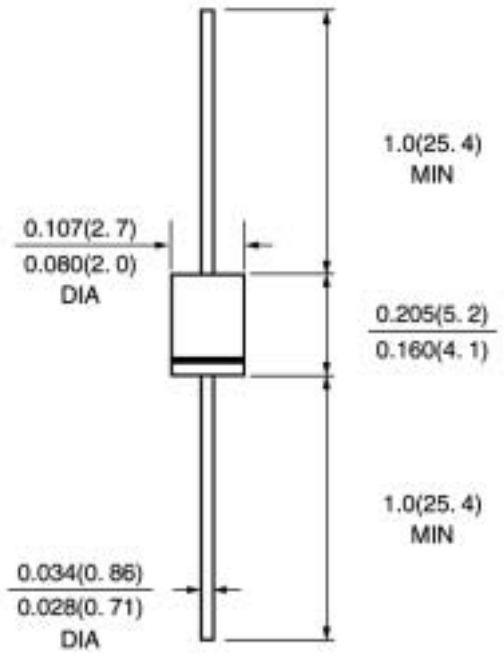
FEATURE

High temperature metallurgically bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
350˚C /10sec/0.375”lead length at 5 lbs tension
Operate at Ta =55˚C with no thermal run away
Typical Ir<0.1µA

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	1N4942 GP	1N4944 GP	1N4946 GP	1N4947 GP	1N4948 GP	units
* Maximum Recurrent Peak Reverse Voltage	Vrrm	200	400	600	800	1000	V
* Maximum RMS Voltage	Vrms	140	280	420	560	700	V
* Maximum DC blocking Voltage	Vdc	200	400	600	800	1000	V
* Maximum Average Forward Rectified Current 3/8”lead length at Ta =55˚C	If(av)	1.0					A
* Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	Ifsm	25.0					A
* Maximum Forward Voltage at rated Forward Current and 25˚C	Vf	1.3					V
Maximum DC Reverse Current Ta =25˚C at rated DC blocking voltage Ta =125˚C	Ir	5.0 200					µA µA
* Maximum Reverse Recovery Time (Note 1)	Trr	150		250		500	nS
Typical Junction Capacitance (Note 2)	Cj	15.0					pF
Typical Thermal Resistance (Note 3)	R(ja)	55.0					˚C /W
* Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175					˚C

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8”lead length, P.C. Board Mounted

* JEDEC registered value

FIG. 1 - FORWARD CURRENT DERATING CURVE

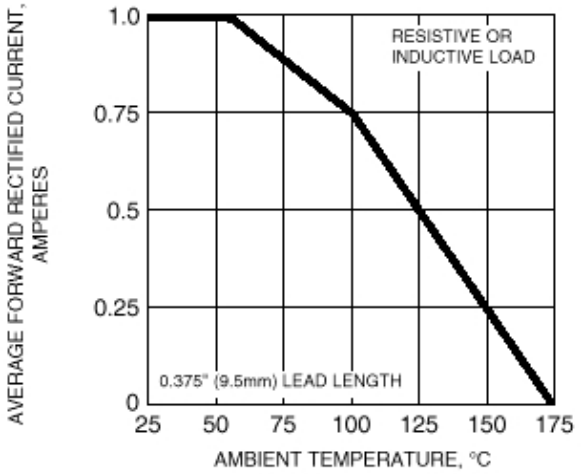


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

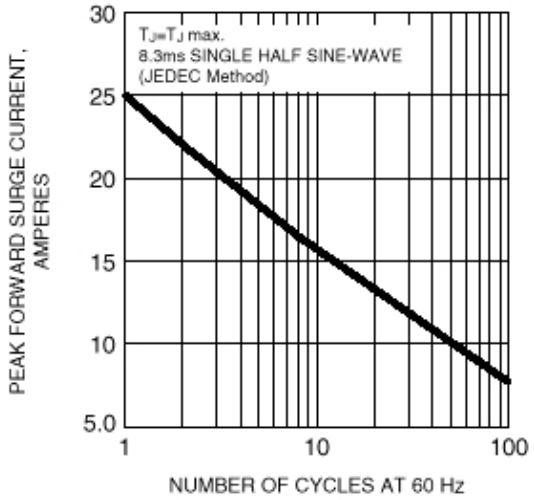


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FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

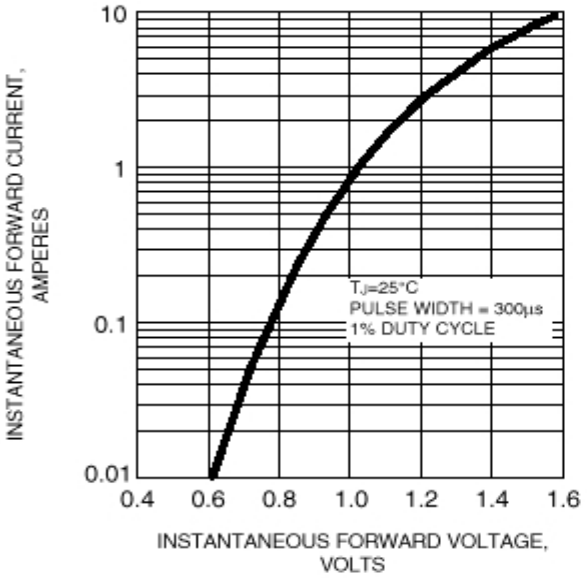


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

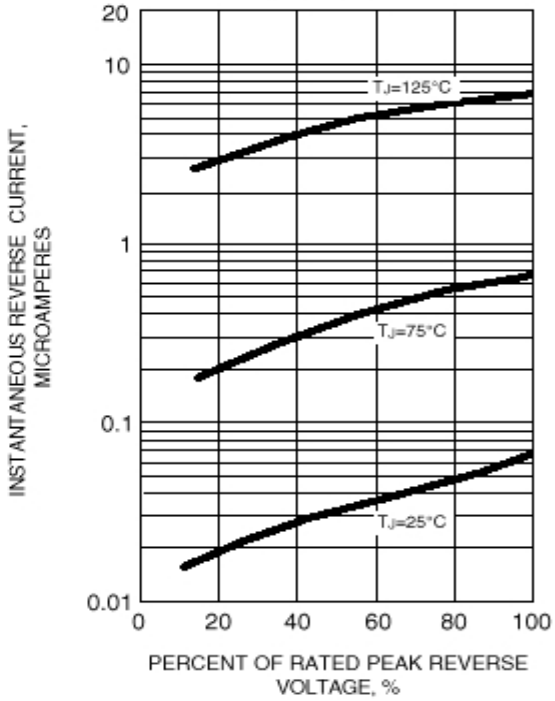


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

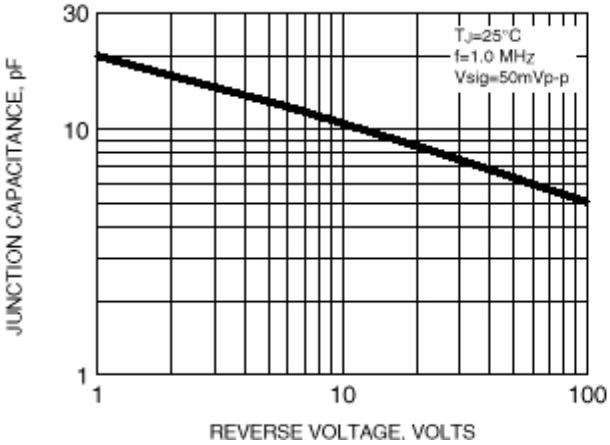
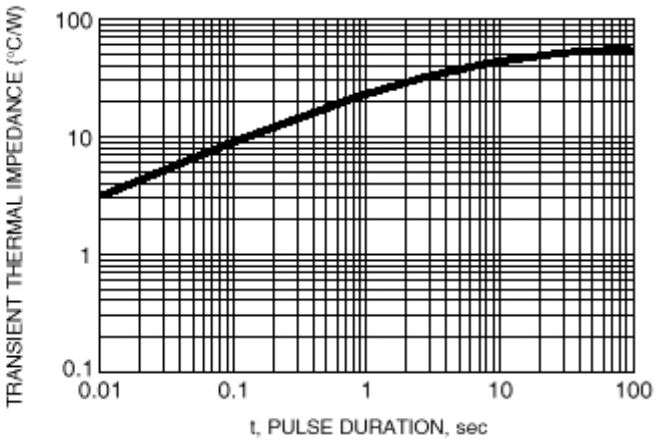


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



[1] Rev.A4, 1-Jul-03