

# 1N4942GP THRU 1N4948GP

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



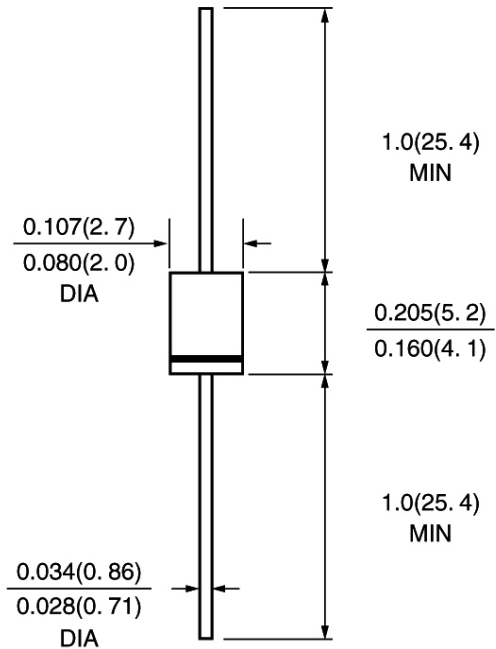
## FEATURE

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:

- Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
  - Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
  - Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted
- \* JEDEC registered value

RATINGS AND CHARACTERISTIC CURVES 1N4942GP THRU 1N4948GP

FIG. 1 - FORWARD CURRENT DERATING CURVE

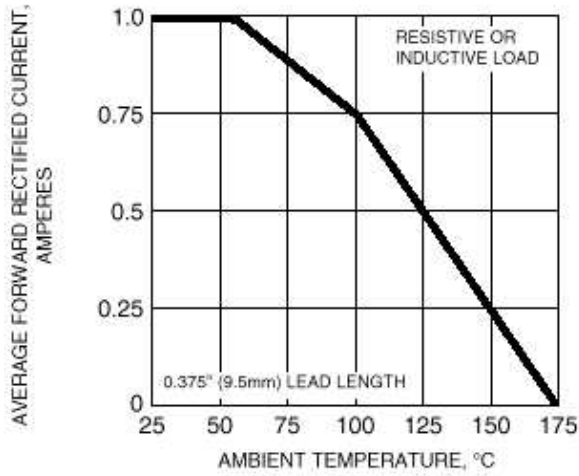


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

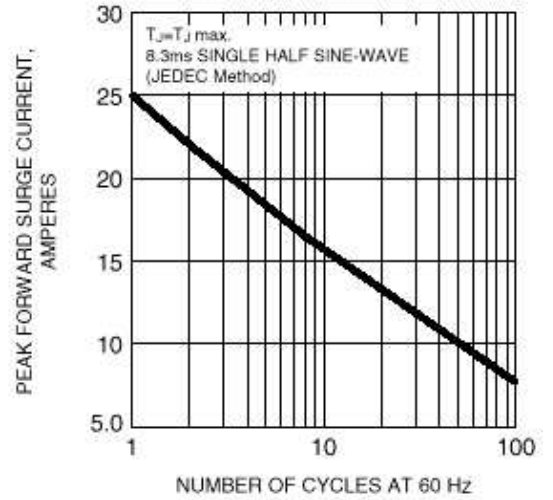


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

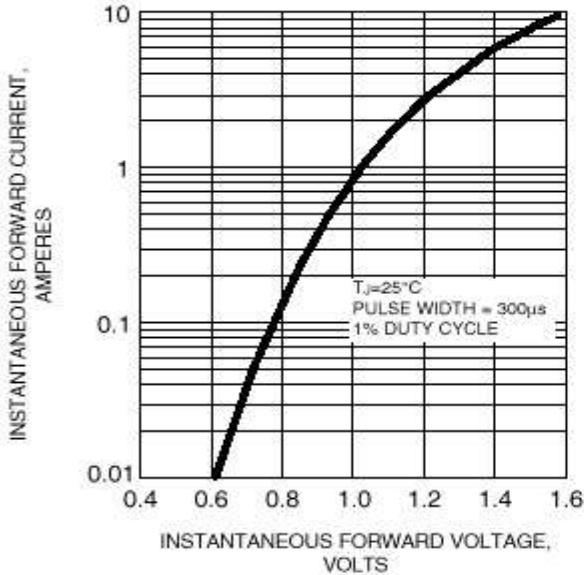


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

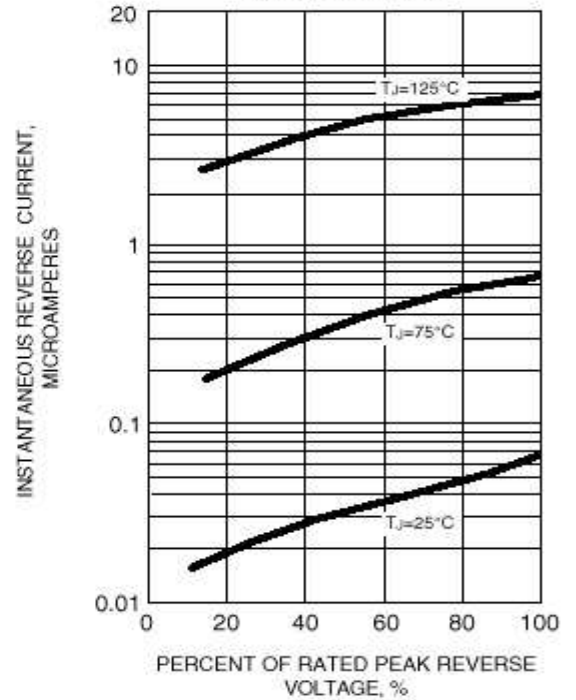


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

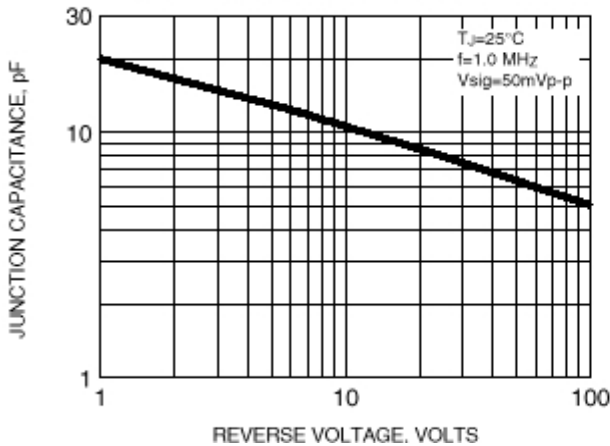


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

