

BYW54GP THRU BYW56GP

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:600 TO 1000V

CURRENT: 2.0A



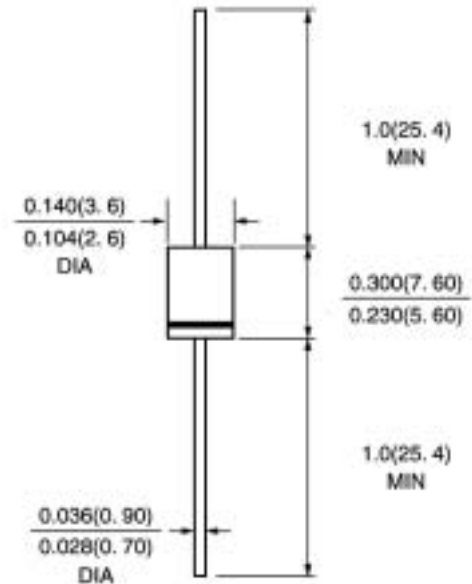
FEATURE

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 =45°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-15\DO-204AC



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, for capacitive load, derate current by 20%)

	SYMBOL	BYW54GP	BYW55GP	BYW56GP	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	600	800	1000	V
Maximum RMS Voltage	V _{rms}	420	560	700	V
Maximum DC blocking Voltage	V _{dc}	600	800	1000	V
reverse avalanche breakdown voltage I _R = 0.1 mA	V _{(BR)R} (min)	650	900	1100	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =45°C	I _{f(av)}	2.0			A
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	I _{fsm}	50.0			A
Maximum Instantaneous Forward Voltage I _F =1.0A	V _f	1.0			V
non-repetitive peak reverse avalanche energy (Note 1)	E _{RSM}	20			mJ
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta=125°C	I _r	5.0 100			µA
Typical Reverse Recovery Time (Note 2)	T _{rr}	3.0			µS
Typical Junction Capacitance (Note 3)	C _j	50.0			PF
Typical Thermal Resistance (Note 4)	R(ja)	35.0			°C /W
Storage and Operating Junction Temperature	T _{stg} , T _j	-65 to +175			°C

Note: 1.L = 120 mH; T_j = T_j max prior to surge; inductive load switched off.

2.Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A

3.Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

4. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

Fig.1 Maximum average forward curve

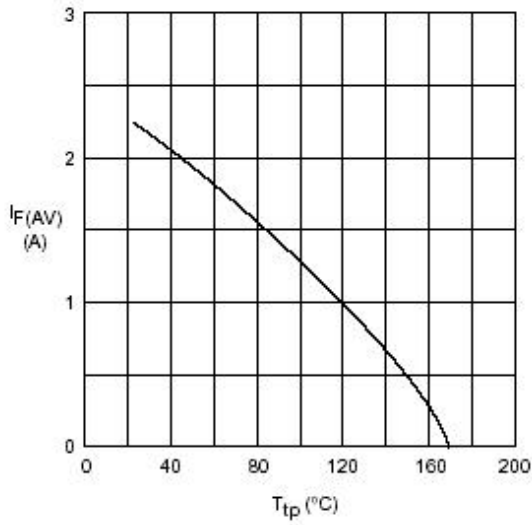


Fig.2 Forward current as a function of forward voltage

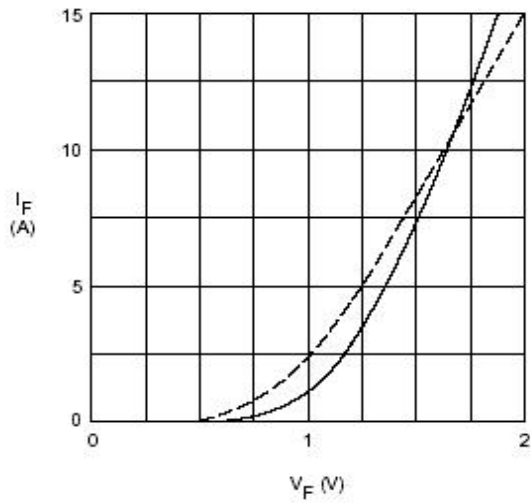


Fig.3 Maximum permissible average forward current as a function of ambient temperature

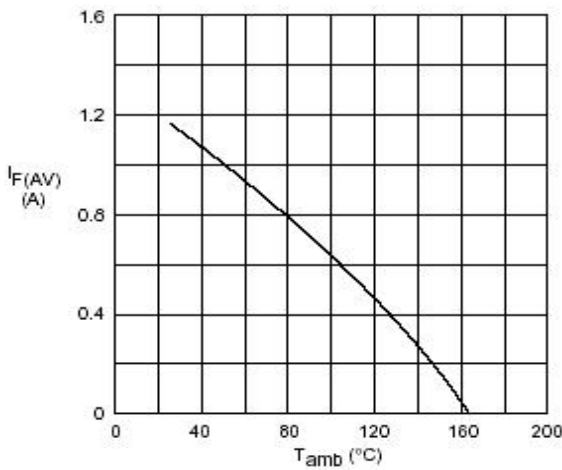


Fig.4 Reverse current as a function of junction temperature

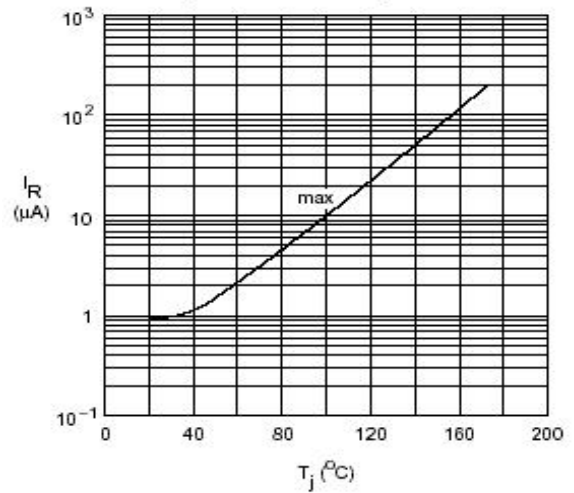


Fig.5 Diode capacitance as a function of reverse voltage

