

# BYV36AGP THRU BYV36EGP

**SINTERED GLASS JUNCTION  
FAST SWITCHING PLASTIC RECTIFIER**  
VOLTAGE: 200 - 1000V      CURRENT: 1.5A

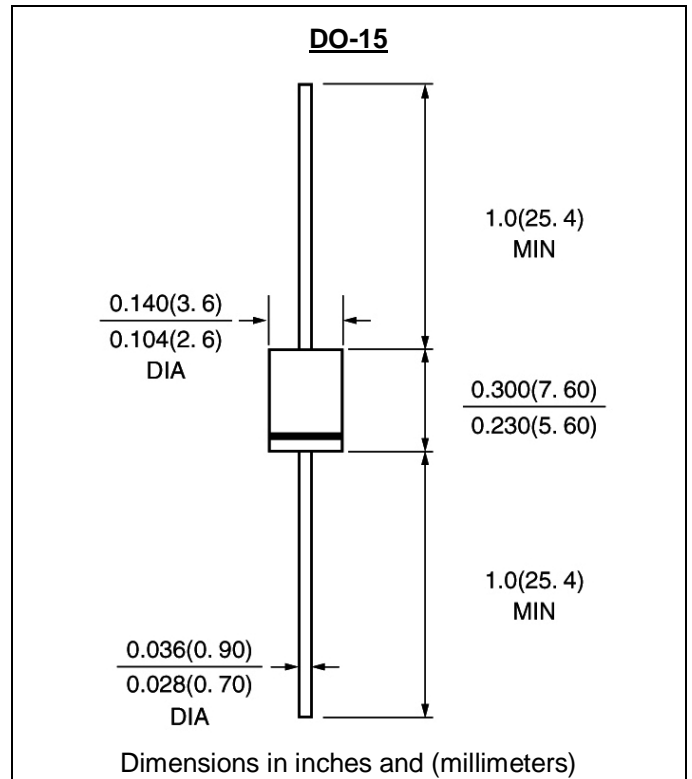


## FEATURE

High temperature metallurgic ally 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 =35°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



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	BYV36A GP	BYV36B GP	BYV36C GP	BYV36D GP	BYV36E GP	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	140	280	420	560	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	400	600	800	1000	V
Reverse avalanche breakdown voltage at IR = 0.1 mA	V <sup>(BR)</sup> <sub>R</sub> (min)	300	500	700	900	1100	V
Maximum Average Forward Rectified T <sub>tp</sub> = 60 °C; lead length = 10 mm;	I <sub>f(av)</sub>	1.6			1.5		A
Peak Forward Surge Current <sub>t</sub> = 10 ms half sine wave; T <sub>j</sub> = T <sub>j max</sub>	I <sub>fsm</sub>	30					A
Maximum Forward Voltage at rated Forward Current and 50°C	V <sub>f</sub>	1.35			1.45		V
Non-repetitive peak reverse avalanche energy (Note 1)	ERSM	10					mJ
Maximum DC Reverse Current    Ta =25°C at rated DC blocking voltage    Ta =150°C	I <sub>r</sub>	5.0 150.0					µA µA
Maximum Reverse Recovery Time (Note 2)	T <sub>rr</sub>	100			150		nS
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	45			40		pF
Typical Thermal Resistance (Note 4)	Rθ <sub>ja</sub>	55.0					°C /W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-65 to +175					°C

Note: 1.R=400mA; T<sub>j</sub>=T<sub>jmax</sub> prior to surge; inductive load switched off

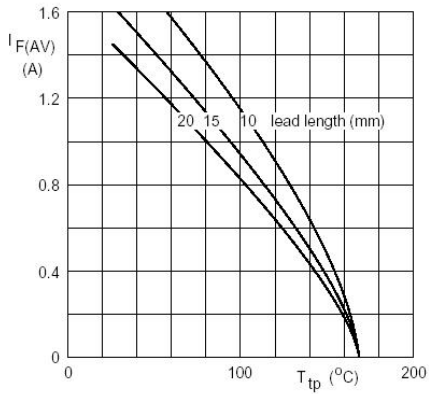
2.Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

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

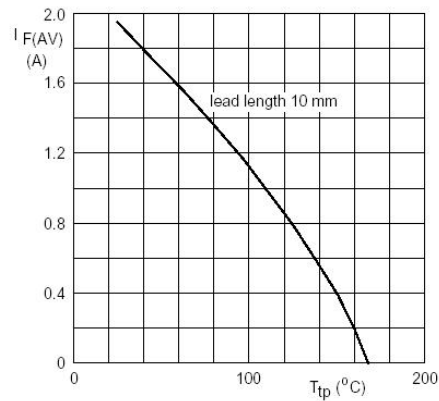
4.Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

# RATINGS AND CHARACTERISTIC CURVES BYV36AGP THRU BYV36EGP

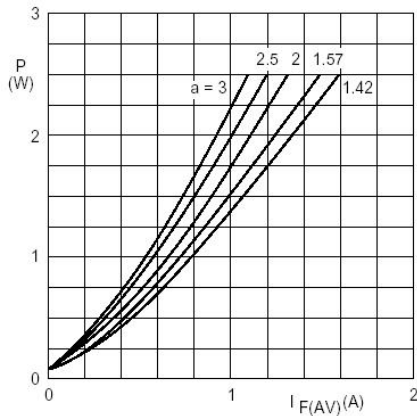
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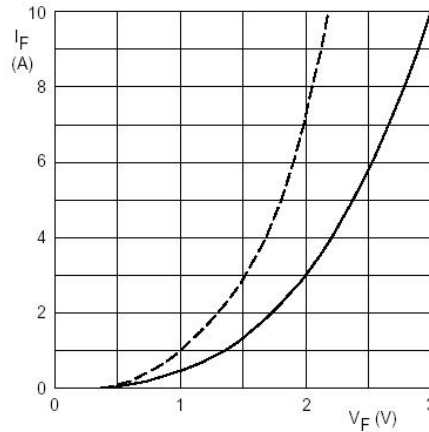
Maximum average forward current as a function of tie-point temperature (including losses due to reverse leakage).



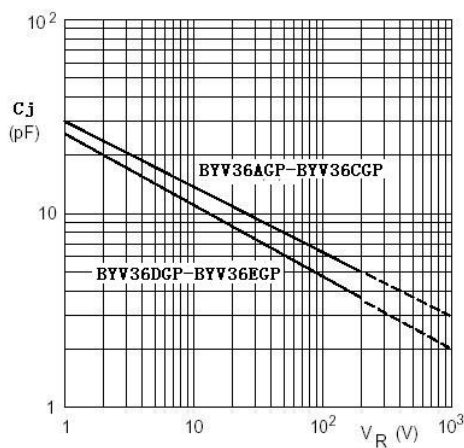
Maximum average forward current as a function of tie-point temperature (including losses due to reverse leakage).



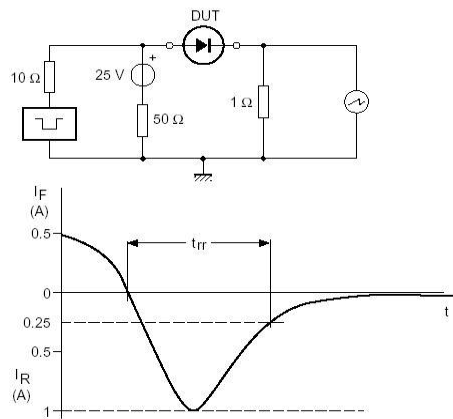
Maximum steady state power dissipation (forward plus leakage current losses, excluding switching losses) as a function of average forward current.



Forward current as a function of forward voltage; maximum values.



Diode capacitance as a function of reverse voltage, typical values.



Test circuit and reverse recovery time waveform and definition.