BYV36AGP THRU BYV36EGP

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

VOLTARISTECH INC.
POWER · PRECISION · INNOVATION

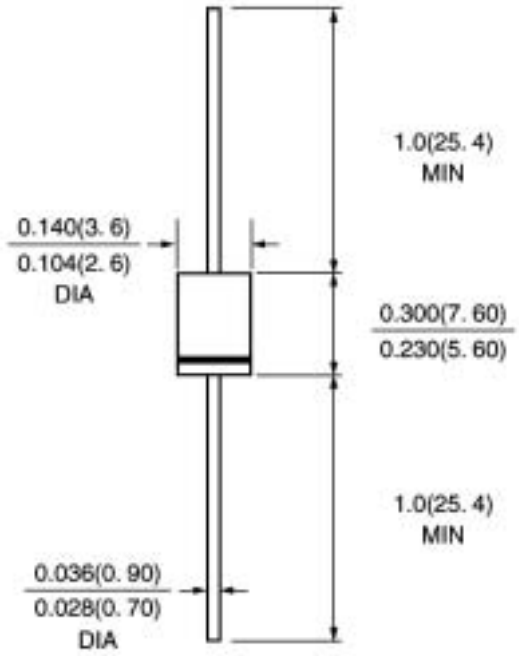
FEATURE

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

DO-15



Dimensions in inches and (millimeters)

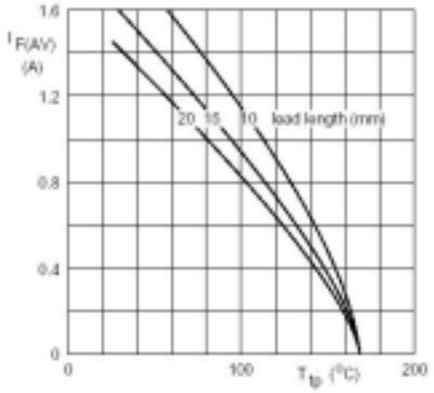
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

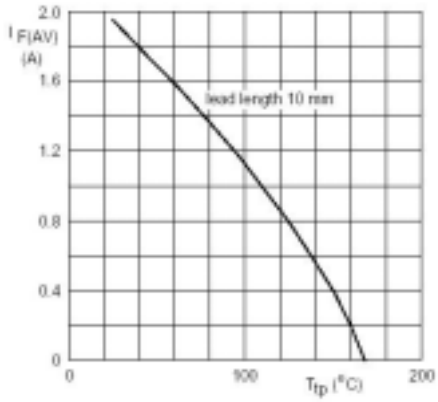
	SYMBOL	BYV36A GP	BYV36B GP	BYV36C GP	BYV36D GP	BYV36E GP	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	200	400	600	800	1000	V
Reverse avalanche breakdown voltage at IR = 0.1 mA	$V_{(BR)R}$ (min)	300	500	700	900	1100	V
Maximum Average Forward Rectified Ttp = 60 C; lead length = 10 mm;	If(av)	1.6			1.5		A
Peak Forward Surge Currentt = 10 ms half sine wave; Tj = Tj max	Ifsm	30					A
Maximum Forward Voltage at rated Forward Current and 50°C	Vf	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	Ir	5.0 150.0					μA μA
Maximum Reverse Recovery Time (Note 2)	Trr	100			150		nS
Typical Junction Capacitance (Note 3)	Cj	45			40		pF
Typical Thermal Resistance (Note 4)	Rθja	55.0					°C /W
Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175					°C

Note: 1.R=400mA; Tj=Tjmax prior to surge; inductive load switched off
2.Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =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

[1]



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



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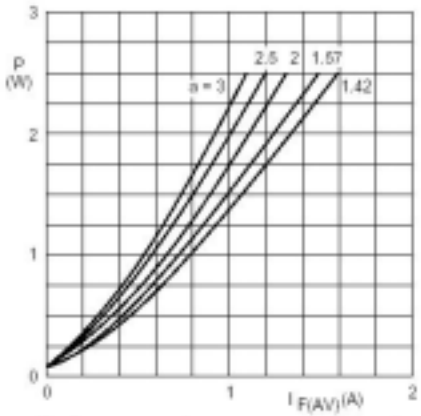
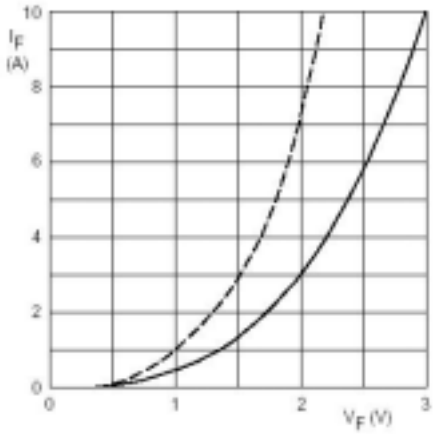
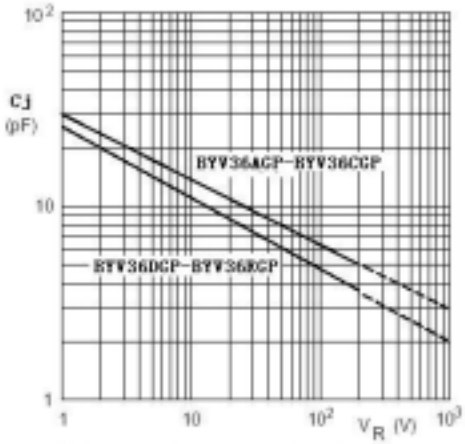


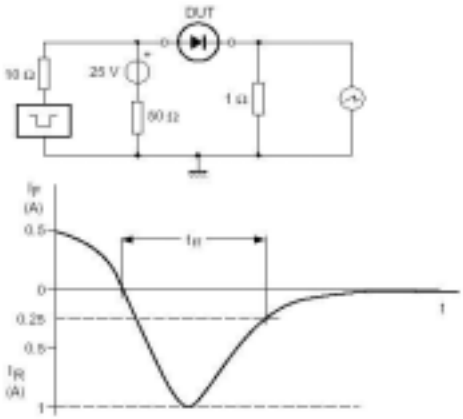
Maximum steady state power dissipation (forward plus leakage current losses, excluding switching losses) as a function of average forward current.



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.

[1] Rev.A6, 16-Nov-05