

# BYV27-150GE

## GLASS PASSIVATED JUNCTION

### ULTRAFAST EFFICIENT SILICON RECTIFIER

VOLTAGE: 150V

CURRENT: 2.0A



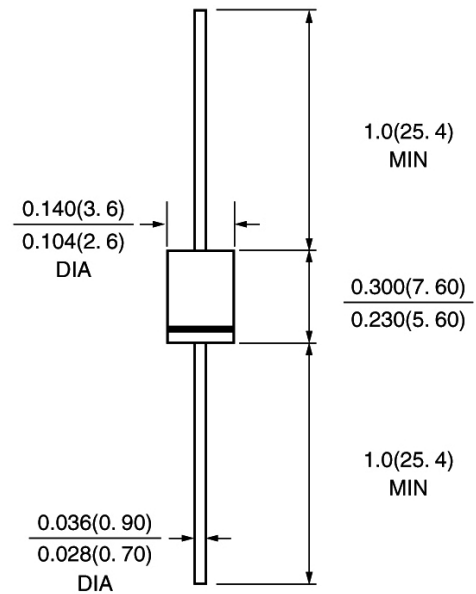
#### FEATURE

Low power loss  
High surge capability  
Glass passivated chip junction  
Ultra-fast recovery time for high efficiency  
High temperature soldering guaranteed  
250°C/10sec/0.375" lead length at 5 lbs tension

#### 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

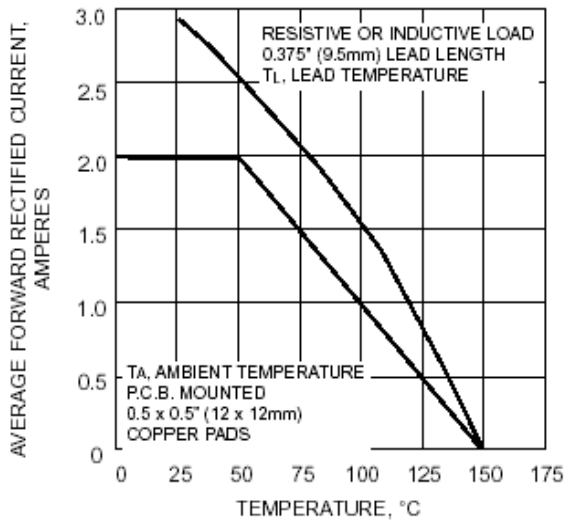
(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	BYV27-150GE	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	150	V
Maximum RMS Voltage	Vrms	105	V
Maximum DC blocking Voltage	Vdc	150	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	If(av)	2.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	50.0	A
Maximum Forward Voltage at Forward current 2.0A Peak	Vf	0.98	V
Non-repetitive peak reverse avalanche energy (Note 1)	Ersm	20	mJ
Maximum DC Reverse Current at rated DC blocking voltage Ta =25°C Ta =125°C	Ir	5.0 150.0	µA
Maximum Reverse Recovery Time (Note 2)	Trr	25	nS
Typical Junction Capacitance (Note 3)	Cj	15	pF
Typical Thermal Resistance (Note 4)	Rth(ja)	45	°C/W
Storage and Operating Junction Temperature	Tstg,Tj	-55 to +150	°C

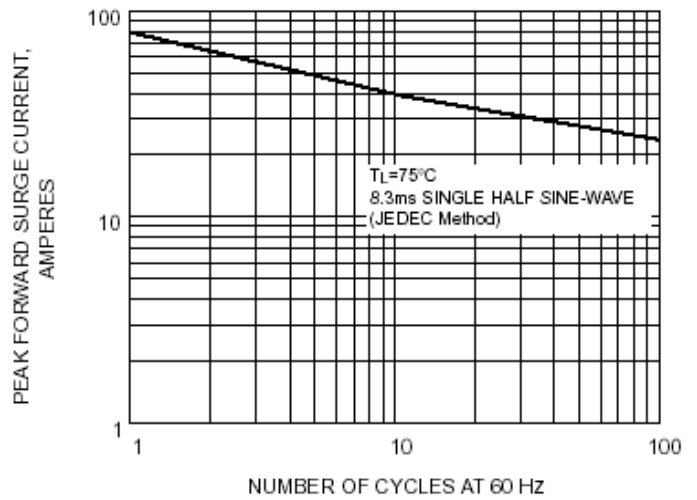
Note: 1.L = 120 mH; Tj = Tj max prior to surge; inductive load switched off.  
2.Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A  
3.Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc  
4.Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

# RATINGS AND CHARACTERISTIC CURVES BYV27-150GE

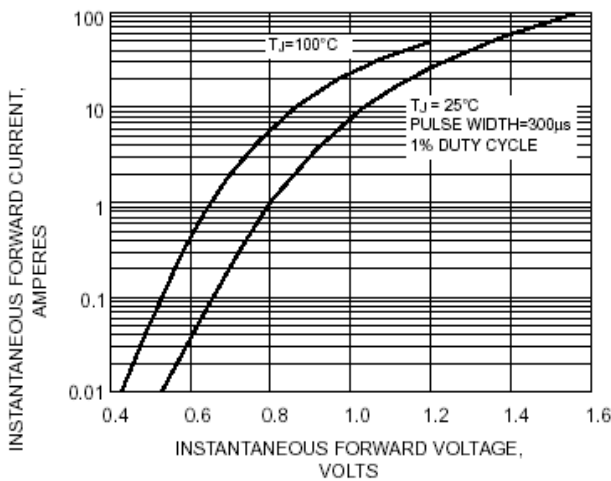
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVES**



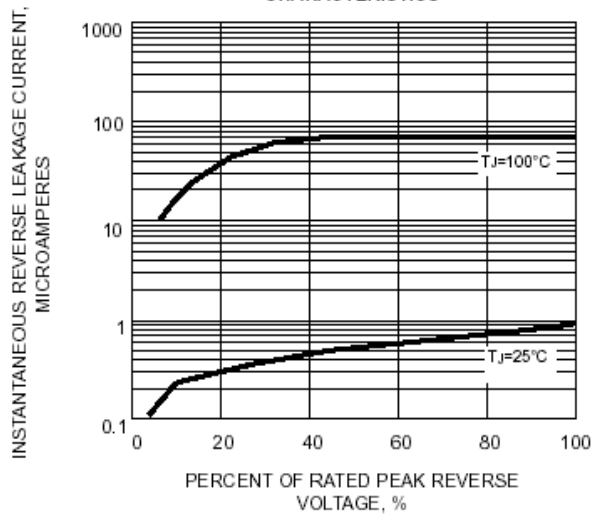
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



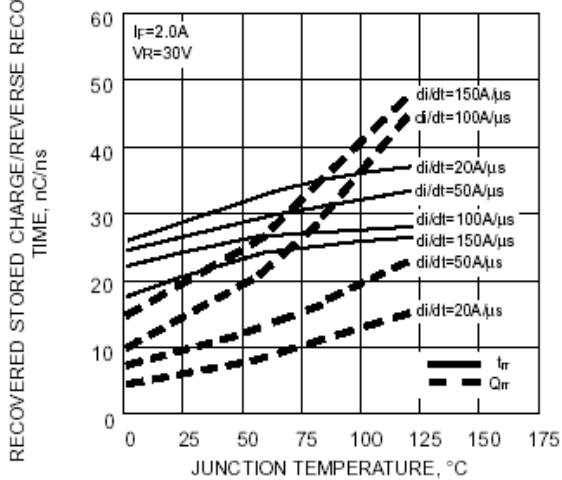
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - REVERSE SWITCHING CHARACTERISTICS**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE**

