# BYV27-1GE THRU BYV27-2GE

**GLASS PASSIVATED JUNCTION**
**ULTRAFAST EFFICIENT SILICON RECTIFIER**
**VOLTAGE：100 TO 200V CURRENT： 2.0A**

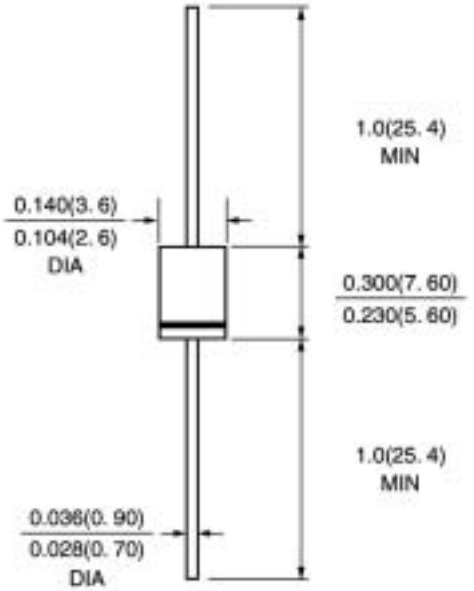
## FEATURE

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 | BYV27-1GE | BYV27-2GE | units |
|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 100 | 200 | V |
| Maximum RMS Voltage | Vrms | 70 | 140 | V |
| Maximum DC blocking Voltage | Vdc | 100 | 200 | 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 Ta =25°C<br>at rated DC blocking voltage Ta =125°C | Ir | 5.0<br>150.0 | | μA<br>μA |
| Maximum Reverse Recovery Time (Note 2) | Trr | 25 | | nS |
| Typical Junction Capacitance (Note 3) | Cj | 15 | | pF |
| Typical Thermal Resistance (Note 4) | R(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

1

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVES

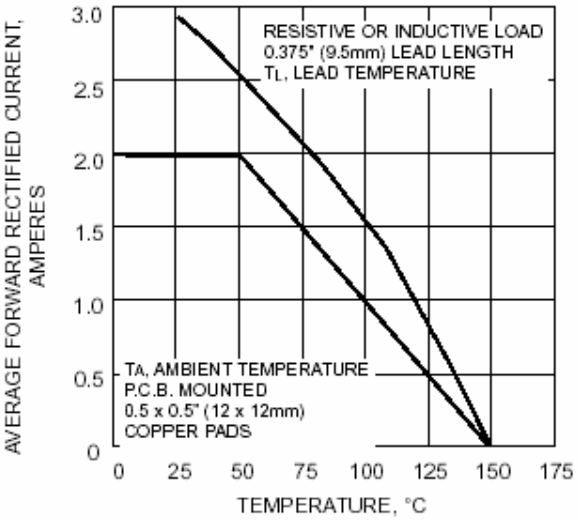



FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

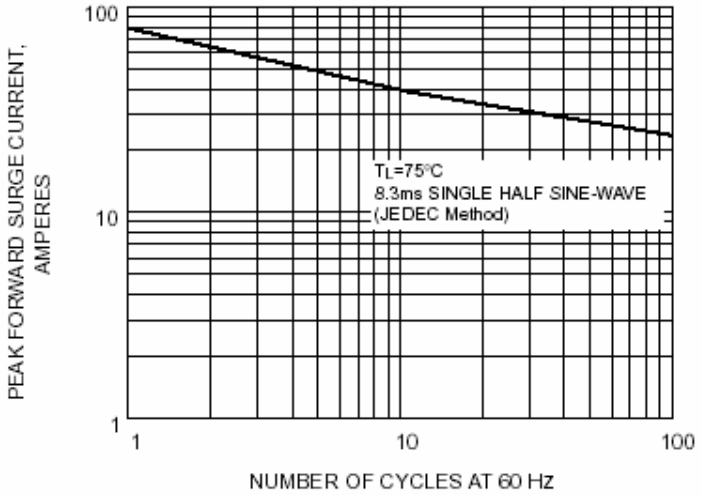



FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

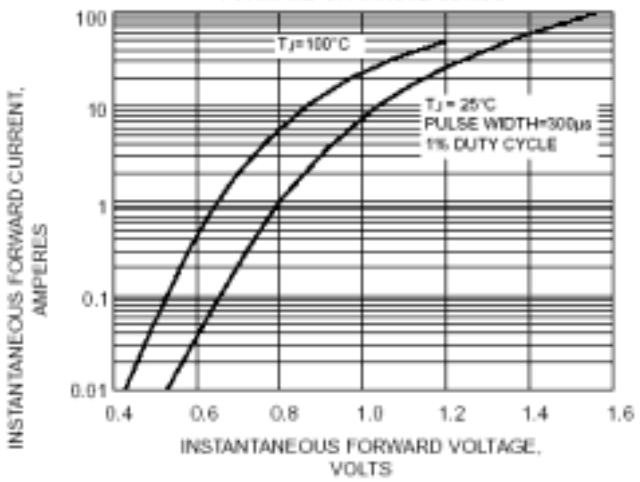



FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

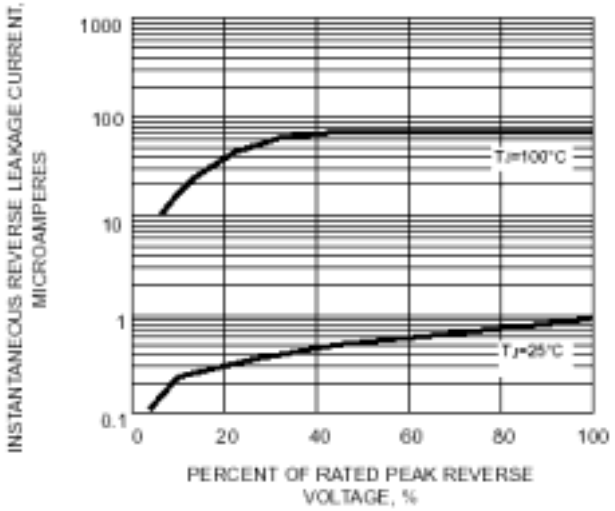
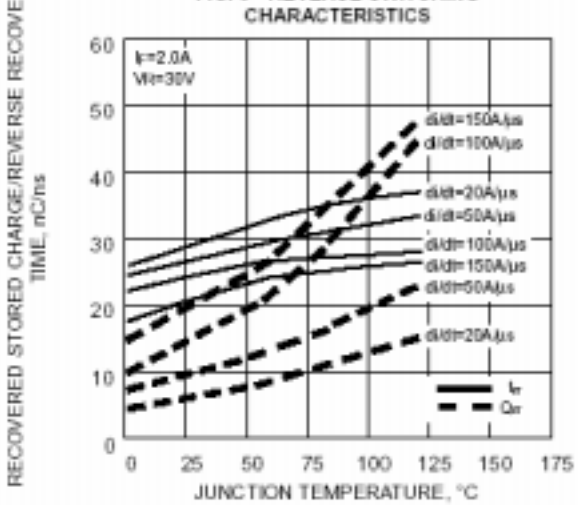



FIG. 5 - REVERSE SWITCHING CHARACTERISTICS



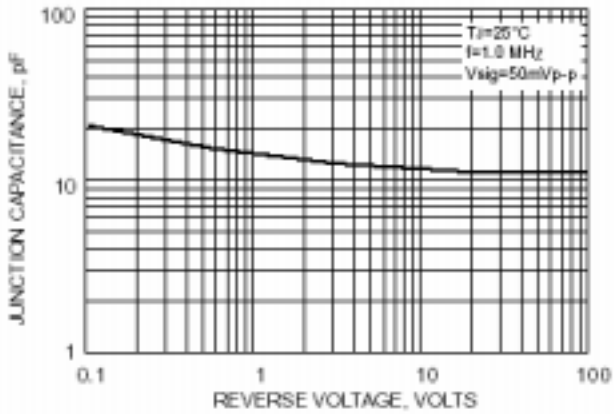


FIG. 6 - TYPICAL JUNCTION CAPACITANCE