

### FEATURES

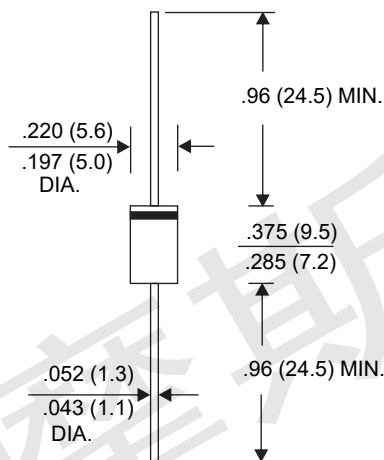
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss

DO-27(DO- 201AD)



### Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- High temperature soldering guaranteed:  
260°C/10 seconds/.375", (9.5mm) lead  
lengths at 5 lbs., (2.3kg) tension
- Weight: 1.1 grams



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

| Type Number                                                                                                | Symbol          | BY1600      | BY1800 | BY2000 | Units    |
|------------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|----------|
| Maximum Recurrent Peak Reverse Voltage                                                                     | $V_{RRM}$       | 1600        | 1800   | 2000   | V        |
| Maximum RMS Voltage                                                                                        | $V_{RMS}$       | 420         | 560    | 910    | V        |
| Maximum DC Blocking Voltage                                                                                | $V_{DC}$        | 1600        | 1800   | 2000   | V        |
| Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 75^\circ\text{C}$              | $I_{(AV)}$      | 10.0        |        |        | A        |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )        | $I_{FSM}$       | 200         |        |        | A        |
| Maximum Instantaneous Forward Voltage @ 10.0A                                                              | $V_F$           | 1.2         |        |        | V        |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | $I_R$           | 10.0<br>100 |        |        | uA<br>uA |
| Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_L=75^\circ\text{C}$    | $HT_{IR}$       | 30          |        |        | uA       |
| Typical Junction Capacitance ( Note 1 )                                                                    | $C_j$           | 40          |        |        | pF       |
| Typical Thermal Resistance ( Note 2 )                                                                      | $R_{\theta JA}$ | 40          |        |        | °C/W     |
| Operating Temperature Range                                                                                | $T_J$           | -65 to +150 |        |        | °C       |
| Storage Temperature Range                                                                                  | $T_{STG}$       | -65 to +150 |        |        | °C       |

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
2. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

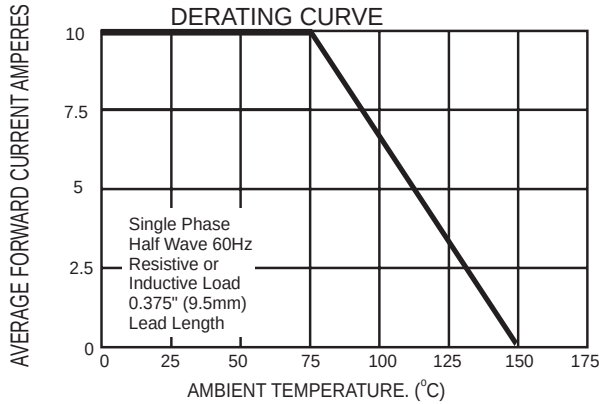


FIG.2- TYPICAL REVERSE CHARACTERISTICS

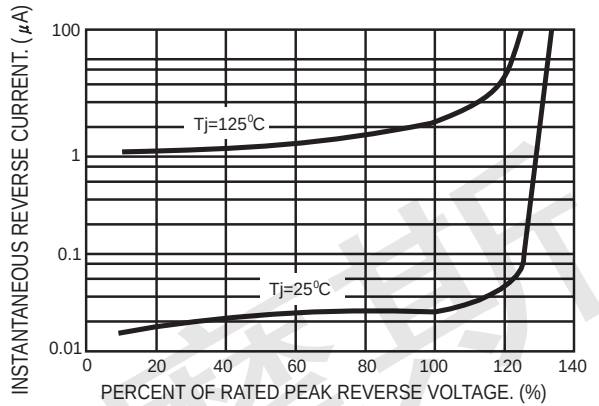


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

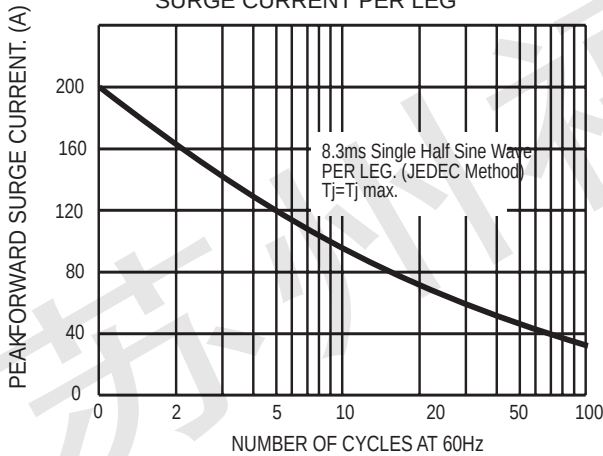


FIG.4- TYPICAL JUNCTION CAPACITANCE

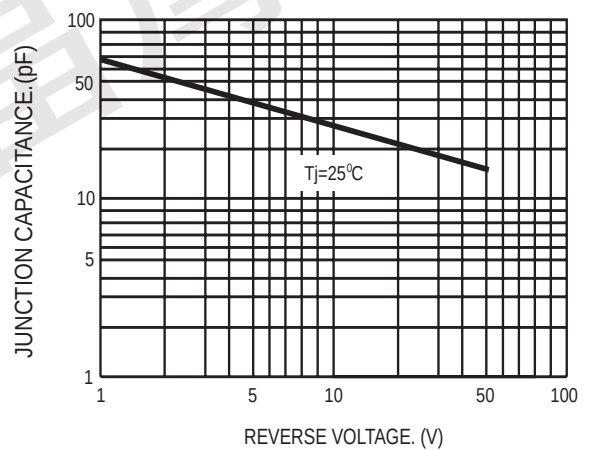


FIG.5- TYPICAL FORWARD CHARACTERISTICS

