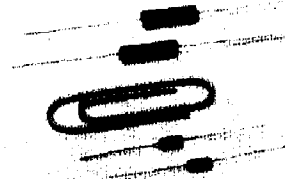
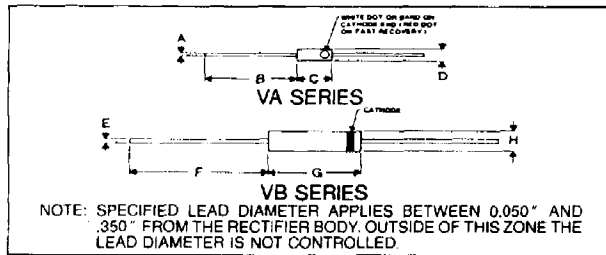


**High Voltage Diffused Rectifiers VA & VB Series**

1KV To 3.5KV  $V_{RRM}$  (VA Series)  
1KV To 15 KV  $V_{RRM}$  (VB Series)  
Low Leakage Current  
Fast Recovery Series With 250 Nanosecond  $t_r$   
Minimum Sized Epoxy Encapsulation



| LTR. | INCHES    | MILLIMETERS |
|------|-----------|-------------|
| A    | .015 Dia. | .381 Dia.   |
| B    | 40 Min.   | 10.16 Min.  |
| C    | .150      | 3.81        |
| D    | .060 Dia. | 1.52 Dia.   |
| E    | .020 Dia. | .51 Dia.    |
| F    | 60 Min.   | 15.24 Min.  |
| G    | .40       | 10.16       |
| H    | .100 Dia. | 2.54 Dia.   |



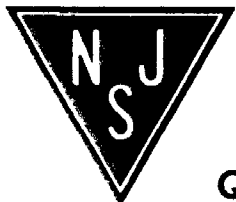
NOTE:  
ALL PARTS MUST BE OVERMOLDED WITH HIGHLY FILLED EPOXY TO MEET THE STATED CURRENT RATINGS. TYPE VA PARTS ABOVE 1500V AND VB PARTS ABOVE 3000V MUST BE OVERMOLDED TO MEET  $V_{RRM}$  RATING. DIMENSIONAL TOLERANCES .XX ± .02", .XXX ± .005".

NOTE: SPECIFIED LEAD DIAMETER APPLIES BETWEEN 0.050" AND .350" FROM THE RECTIFIER BODY. OUTSIDE OF THIS ZONE THE LEAD DIAMETER IS NOT CONTROLLED.

NOTES:  
1. SUFFIX "X" ADDED TO PART NUMBER DENOTES FAST RECOVERY.  
2. MAXIMUM LEAD AND TERMINAL TEMPERATURE FOR SOLDERING 3/8" FROM CASE, 5 SECONDS AT 250°C.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS at  $T_A = 25^\circ\text{C}$  (unless otherwise specified)**

| STANDARD TYPES      |   |  |  |  |  |   |  |   |
|---------------------|---|--|--|--|--|---|--|---|
| MQSI PART NO.       | Repetitive Peak Reverse Voltage $V_{RRM}$ (Volts) | Peak Surge Current 1/2 Cycle at 60 Hz $I_{FSM}$ (Amps) | DC Forward Current at $T_A = 50^\circ\text{C}$ $I_o$ (mA) (Fig. 1) | Ambient Operating Temperature Range $T_A$ ( $^\circ\text{C}$ ) | Max. Forward Voltage Drop @ 10mA (Volts) | Max. Reverse Current At Rated $V_{RRM}$ $I_{RS}$ ( $\mu\text{A}$ ) (Fig. 2) | Max. Reverse Current At Rated $V_{RRM}$ $I_{RS}$ ( $\mu\text{A}$ ) | $t_r$ (max)<br>$I_f = 2 \text{ ma}$<br>$I_R = -4 \text{ ma}$<br>$I_{RS} = -1 \text{ ma}$<br>(ns) (Fig. 3) |
| VA-10               | 1000  | 3  | 140  | -55 to +150  | 4  | .05   | 5.0<br>at<br>$T_A = 100^\circ\text{C}$                             | NA  |
| VA-15               | 1500  |  | 140  |  | 4  |   |  |   |
| VA-20               | 2000  |  | 140  |  | 4  |   |  |   |
| VA-25               | 2500  |  | 140  |  | 4  |   |  |   |
| VA-30               | 3000  |  | 140  |  | 6  |   |  |   |
| VA-35               | 3500  |  | 140  |  | 6  |   |  |   |
| VB-10               | 1000  |  | 150  |  | 5  |   |  |   |
| VB-20               | 2000  |  | 150  |  | 5  |   |  |   |
| VB-30               | 3000  |  | 80   |  | 10                                       |   |  |   |
| VB-40               | 4000  |  | 80   |  | 10                                       |   |  |   |
| VB-50               | 5000  | 80   | 10   |  |  |   |  |   |
| VB-60               | 6000  | 80   | 10   |  |  |   |  |   |
| VB-75               | 7500  | 60   | 16   |  |  |   |  |   |
| VB-100              | 10000   | 50   | 18   |  |  |   |  |   |
| FAST RECOVERY TYPES |   |  |  |  |  |   |  |   |
| VA-10X              | 1000  | 3  | 70   | -55 to +135  | 6  | 0.3   | 10.0<br>at<br>$T_A = 100^\circ\text{C}$                            | 250<br>nsec   |
| VA-15X              | 1500  |  | 70   |  | 6  |   |  |   |
| VA-20X              | 2000  |  | 70   |  | 6  |   |  |   |
| VA-25X              | 2500  |  | 70   |  | 8  |   |  |   |
| VA-30X              | 3000  |  | 70   |  | 8  |   |  |   |
| VB-10X              | 1000  |  | 80   |  | 6  |   |  |   |
| VB-20X              | 2000  |  | 80   |  | 6  |   |  |   |
| VB-30X              | 3000  |  | 40   |  | 12                                       |   |  |   |
| VB-40X              | 4000  |  | 40   |  | 12                                       |   |  |   |
| VB-50X              | 5000  |  | 40   |  | 12                                       |   |  |   |
| VB-75X              | 7500  | 25   | 18   |  |  |   |  |   |
| VB-100X             | 10,000  | 25   | 20   |  |  |   |  |   |
| VB-150X             | 15,000  | 1  | 5  | 42   |  |   |  |   |



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**Quality Semi-Conductors**

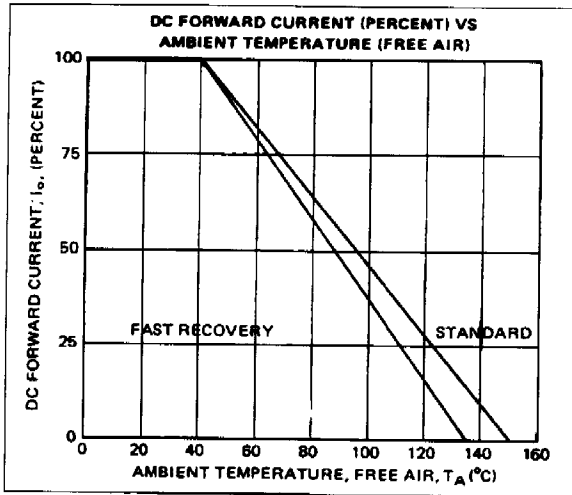


FIGURE 1

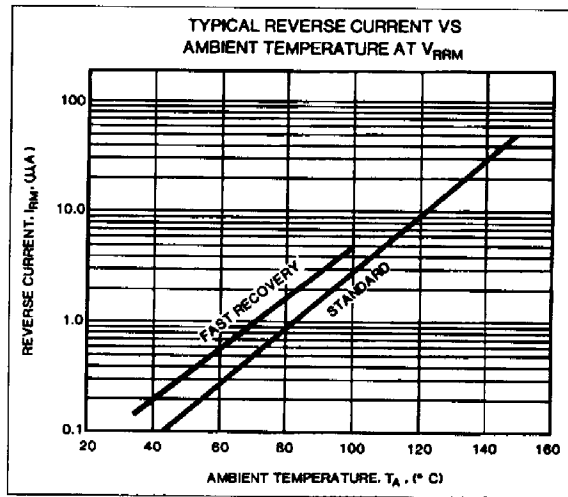


FIGURE 2

