

## SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volts CURRENT 2.0 Ampere

DO-15

### FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

### MECHANICALDATA

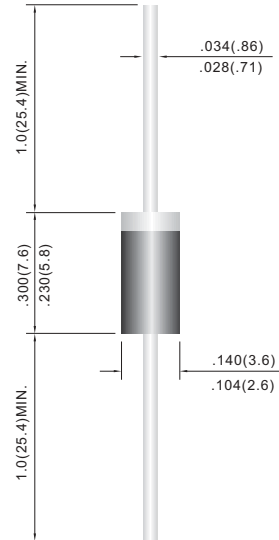
Case: Molded plastic, DO-15

Terminals: Axial leads, solderable to MIL-STD-202G, Method 208

Polarity: Color Band denotes cathode end

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram



Unit: inch(mm)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER   | SYMBOL          | ER200       | ER201 | ER201A | ER202 | ER203 | ER204 | ER206 | ER206A | ER208 | UNITS                       |
|---|-----------------|-------------|-------|--------|-------|-------|-------|-------|--------|-------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 50          | 100   | 150    | 200   | 300   | 400   | 600   | 700    | 800   | V                           |
| Maximum RMS Voltage   | $V_{RMS}$       | 35          | 70    | 105    | 140   | 210   | 280   | 420   | 490    | 560   | V                           |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50          | 100   | 150    | 200   | 300   | 400   | 600   | 700    | 800   | V                           |
| Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$                        | $I_{F(AV)}$     | 2.0         |       |        |       |       |       |       |        |       | A                           |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)          | $I_{FSM}$       | 50          |       |        |       |       |       |       |        |       | A                           |
| Maximum Forward Voltage at 2.0A DC  | $V_F$           | 0.95        |       |        | 1.25  |       | 1.70  | 2.0   | 2.5    |       | V                           |
| Maximum DC Reverse Current at $T_J=25^\circ\text{C}$<br>Rated DC Blocking Voltage $T_J=125^\circ\text{C}$ | $I_R$           |             |       |        |       | 1.0   | 300   |       |        |       | $\mu\text{A}$               |
| Maximum Reverse Recovery Time(Note 1)   | $t_{rr}$        |             |       |        |       | 35    |       |       |        |       | ns                          |
| Typical Junction capacitance (Note 2)   | $C_J$           |             |       |        |       | 35    |       |       |        |       | pF                          |
| Typical Junction Resistance(Note 3)   | $R_{\theta JA}$ |             |       |        |       | 20    |       |       |        |       | $^\circ\text{C} / \text{W}$ |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to +150 |       |        |       |       |       |       |        |       | $^\circ\text{C}$            |

NOTES:1. Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$

2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC

3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

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FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

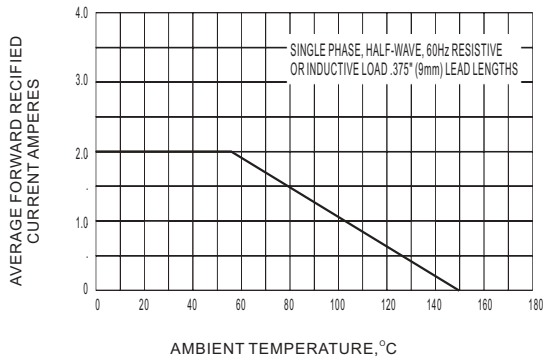


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

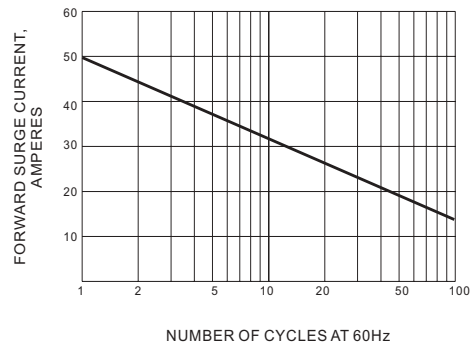


FIG.3 TYPICAL REVERSE CHARACTERISTICS

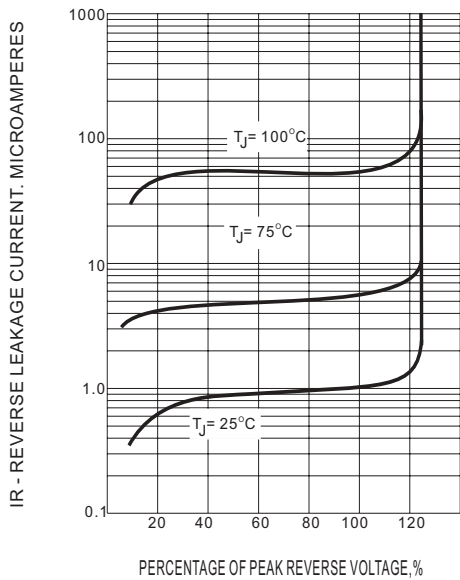


FIG.4 TYPICAL FORWARD CHARACTERISTICS

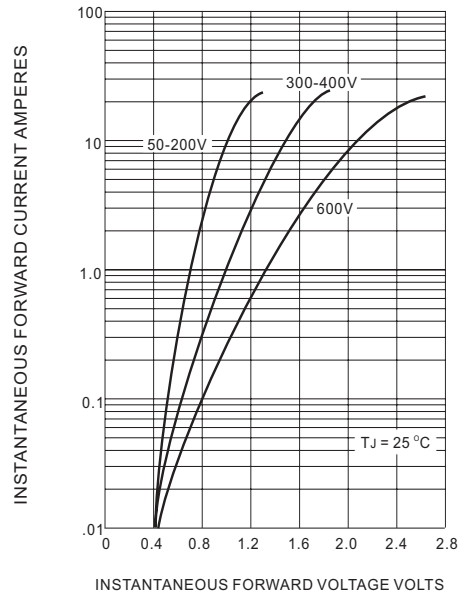


FIG.5 TYPICAL JUNCTION CAPACITANCE

