



ER100 ~ ER108

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 800 Volts **CURRENT** 1.0 Ampere

FEATURES

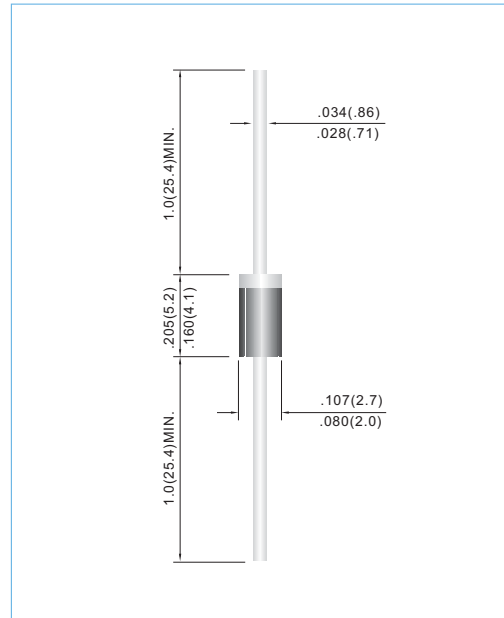
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: Molded plastic, DO-41.
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end.
- Mounting Position: Any
- Weight: 0.0118 ounce, 0.397 gram

DO-41

Unit: inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

| PARAMETER | SYMBOL | ER100 | ER101 | ER101A | ER102 | ER103 | ER104 | ER106 | ER108 | UNITS | |
|--|-----------------|-------------|-------|--------|-------|-------|-------|-------|-------|------------------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | 800 | V | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | 560 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | 800 | V | |
| Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=55^\circ\text{C}$ | $I_{F(AV)}$ | 1.0 | | | | | | | | A | |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 30 | | | | | | | | A | |
| Maximum Forward Voltage at 1.0A | V_F | 0.95 | | | 1.25 | | 1.7 | 2.5 | | V | |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$ | I_R | 1.0 | | | | 150 | | | | μA | |
| Typical Junction capacitance (Note 2) | C_J | 17 | | | | | | | | | pF |
| Maximum Reverse Recovery Time (Note 1) | t_{rr} | 35 | | | | | | | | | ns |
| Typical Thermal Resistance | $R_{\theta JA}$ | 50 | | | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating Junction 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



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RATING AND CHARACTERISTIC CURVES

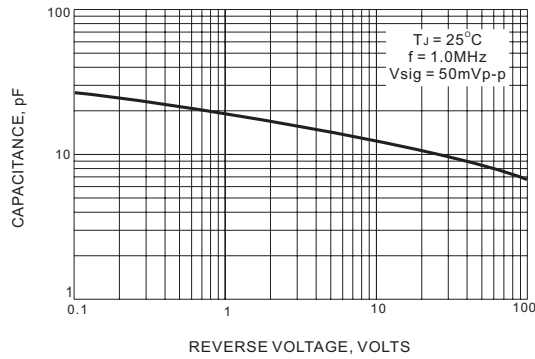


FIG. 1 TYPICAL JUNCTION CAPACITANCE

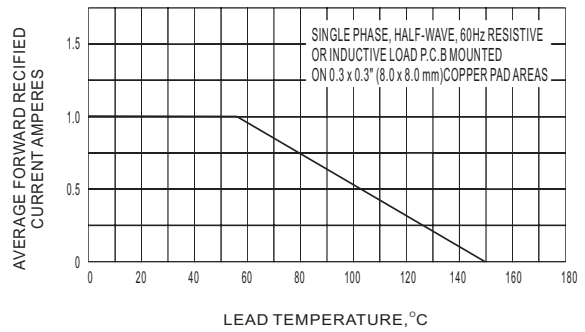


FIG. 2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

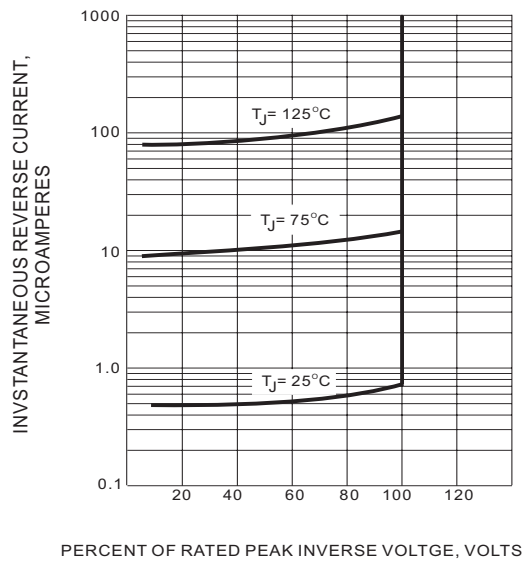


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

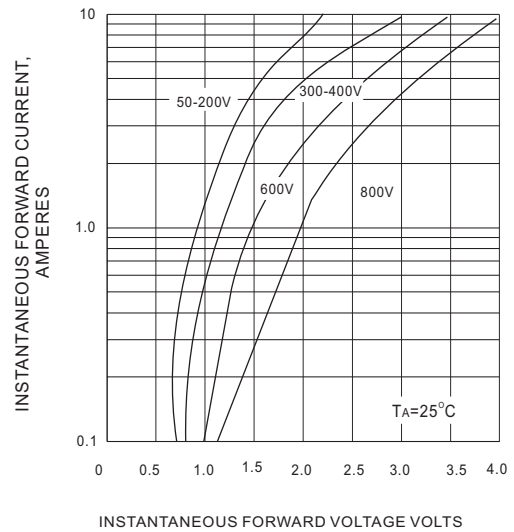


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

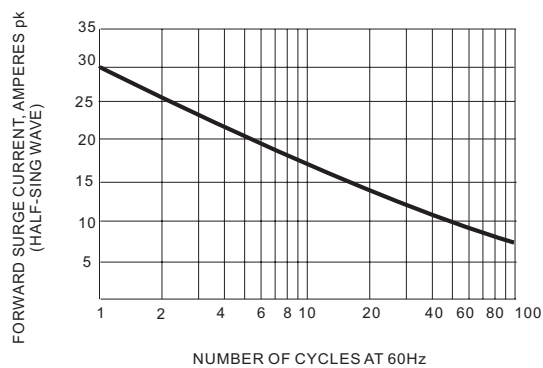


FIG. 5 MAXIMUM NON-REPEITIVE SURGE CURRENT



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Part No_packing code_Version

ER100_AY_00001
ER100_AY_10001
ER100_B0_00001
ER100_B0_10001
ER100_R2_00001
ER100_R2_10001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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