

# ER100 THRU ER106

## SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 600 Volts CURRENT - 1.0 Ampere

### 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

### MECHANICAL DATA

Case: Molded plastic, DO-41

Terminals: Axial leads, solderable to MIL-STD-202,

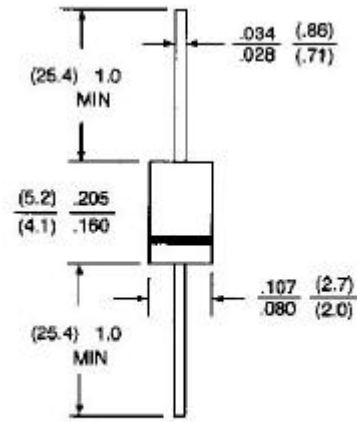
Method 208

Polarity: Color Band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

### DO-41



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

	ER100	ER101	ER101A	ER102	ER103	ER104	ER106	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	320	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Current .375"(9.5mm) lead length at T <sub>A</sub> =55	1.0							A
Peak Forward Surge Current, I <sub>FM</sub> (surge): 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	30.0							A
Maximum Forward Voltage at 1.0A DC		.95			1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							A
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>A</sub> =125	150							A
Maximum Reverse Recovery Time(Note 1)	35.0							ns
Typical Junction capacitance (Note 2)	17							pF
Typical Junction Resistance(Note 3) R <sub>JA</sub>	50							/W
Operating and Storage Temperature Range T <sub>J</sub>	-55 to +150							

### NOTES:

1. Reverse Recovery Test Conditions: I<sub>F</sub>=.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=.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

RATING AND CHARACTERISTIC CURVES

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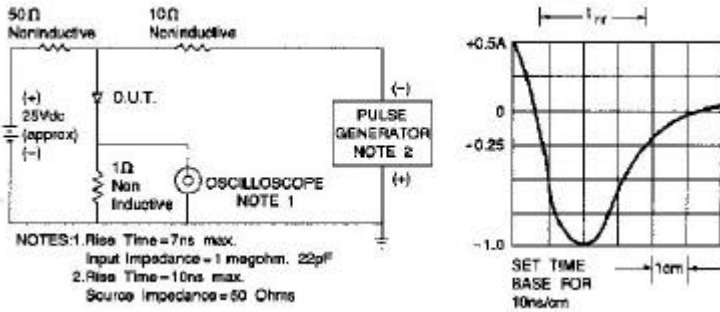


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

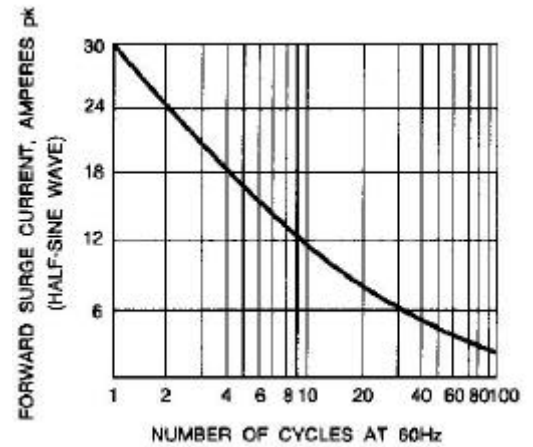


Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

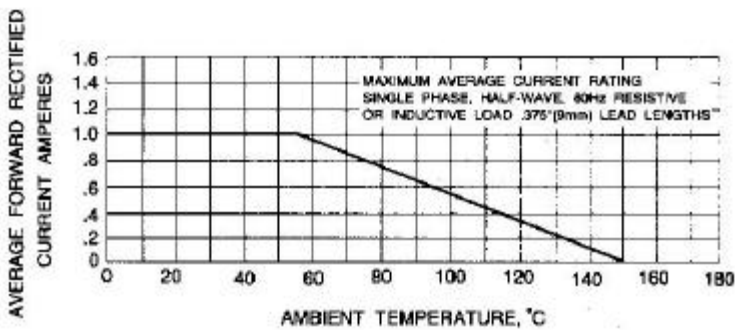


Fig. 3-MAXIMUM AVERAGE FORWARD CURRENT RATING

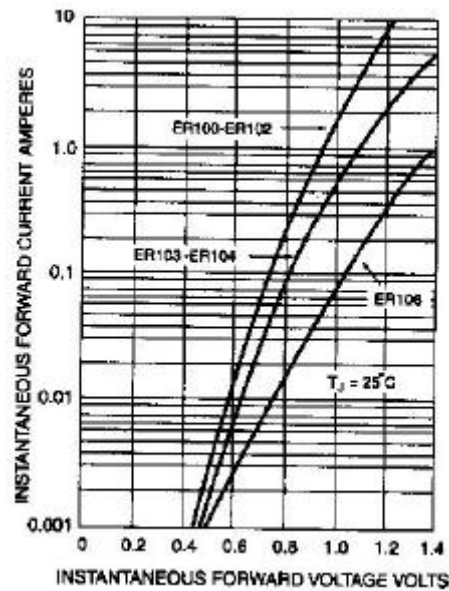


Fig. 4-FORWARD CURRENT DERATING CURVE

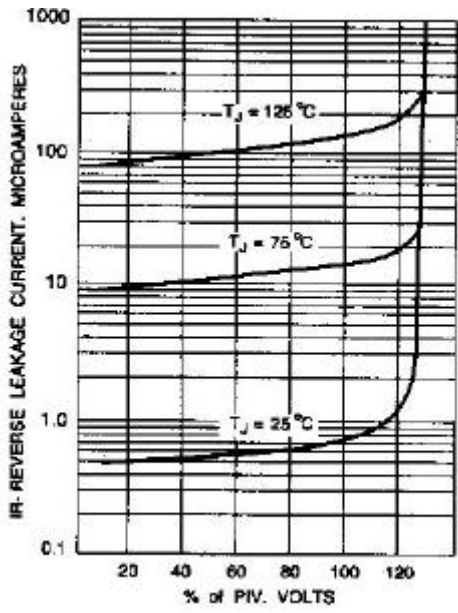


Fig. 5-TYPICAL REVERSE CHARACTERISTICS

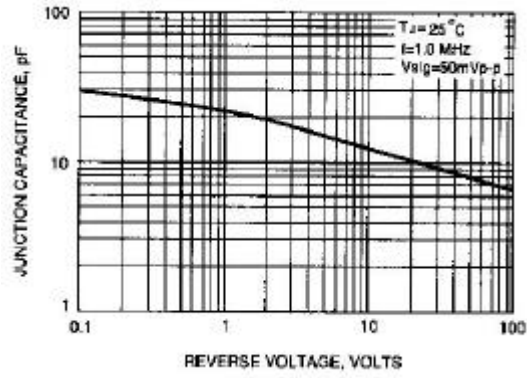


Fig. 6-TYPICAL JUNCTION CAPACITANCE