ER100 ~ ER108

SUPERFAST RECOVERY RECTIFIERS

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

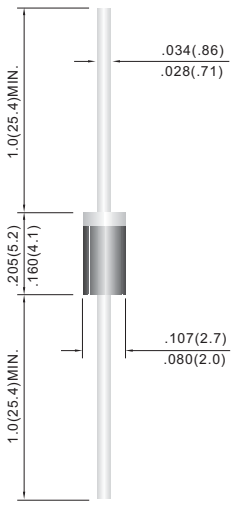
FEATURES

- 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 comply with EU RoHS 2002/95/EC directives.

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°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°C at Rated DC Blocking Voltage T_J=100°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								°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150								°C

NOTES:

1. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, Irr=.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC

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RATING AND CHARACTERISTIC CURVES

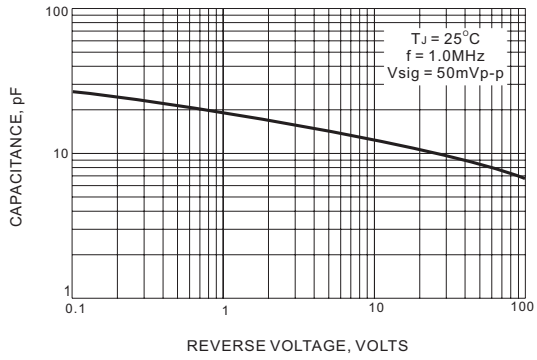

FIG.1 TYPICAL JUNCTION CAPACITANCE

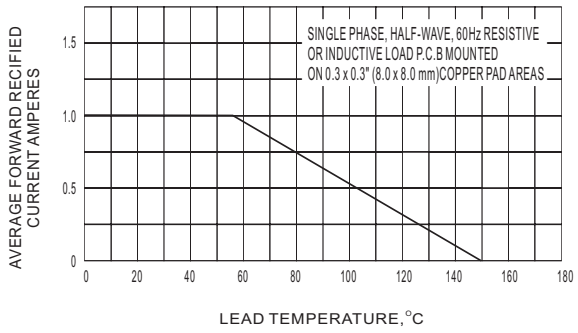

FIG.2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

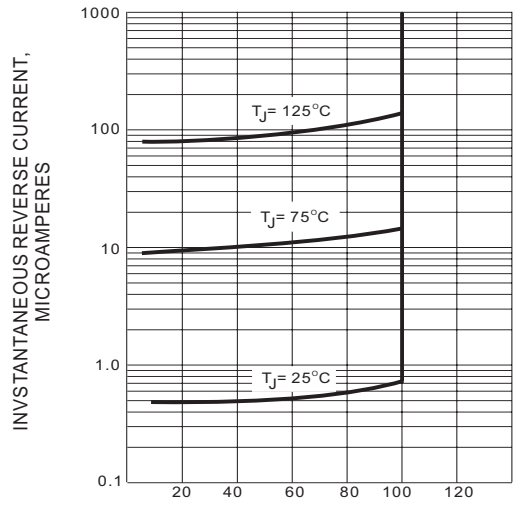

FIG.3 TYPICAL REVERSE CHARACTERISTICS

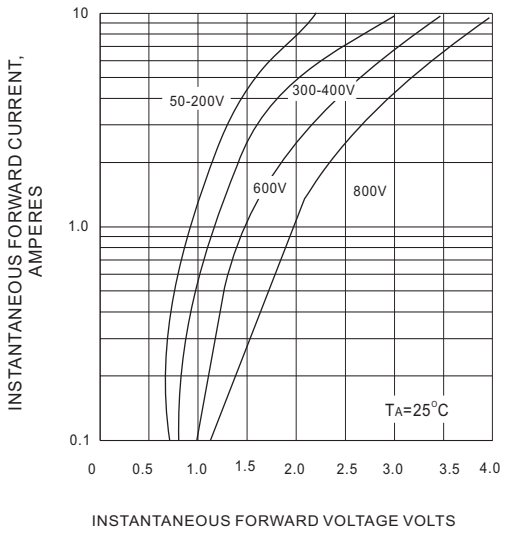

FIG.4 TYPICAL FORWARD CHARACTERISTICS

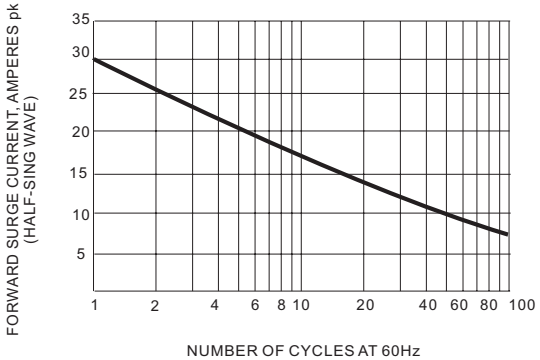

FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT