

ER100S THRU ER106S



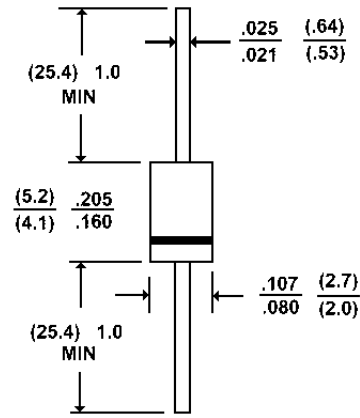
SUPERFAST RECOVERY RECTIFIERS

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

A-405



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, A-405

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

Polarity: Color Band denotes cathode end

Mounting Position: Any

Weight: 0.008 ounce, 0.22 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

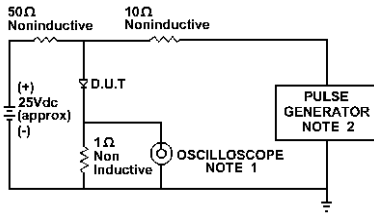
Resistive or inductive load, 60Hz.

	ER100S	ER101S	ER101AS	ER102S	ER103S	ER104S	ER106S	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 lengths at T _A =55 °C	1.0							A
Peak Forward Surge Current, I _{FM} (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							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A =125 °C	150							μA
Maximum Reverse Recovery Time(Note 1)	35.0							ns
Typical Junction capacitance (Note 1)	17							pF
Typical Junction Resistance(Note 2) R _{θJA}	50							°C/W
Operating and Storage Temperature Range T _J	-55 to +150							°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

RATING AND CHARACTERISTIC CURVES
ER100S THRU ER106S



NOTE:1. Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2. Rise Time = 10ns max.
Source Impedance = 50 Ohms

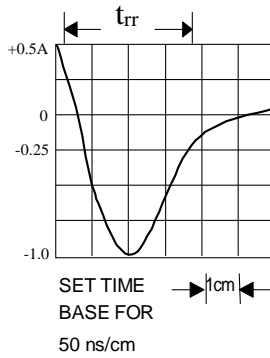


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

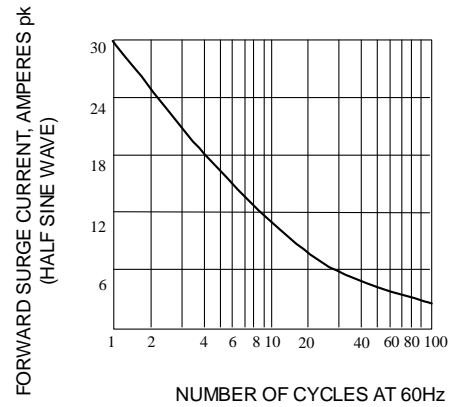


Fig. 2-MAXIMUM NON-REPEITIVE SURGE CURRENT

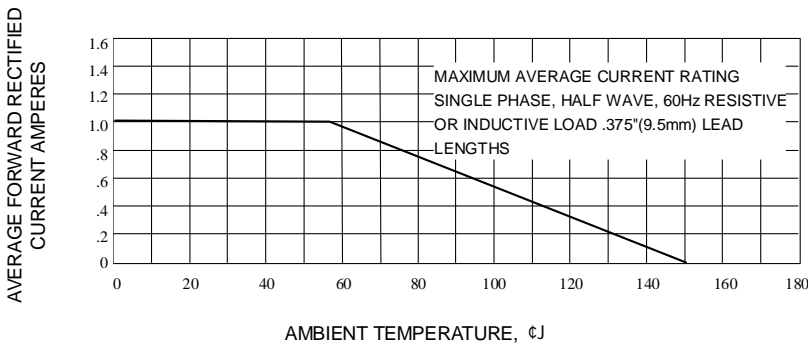


Fig. 3-MAXIMUM AVERAGE FORWARD CURRENT RATING

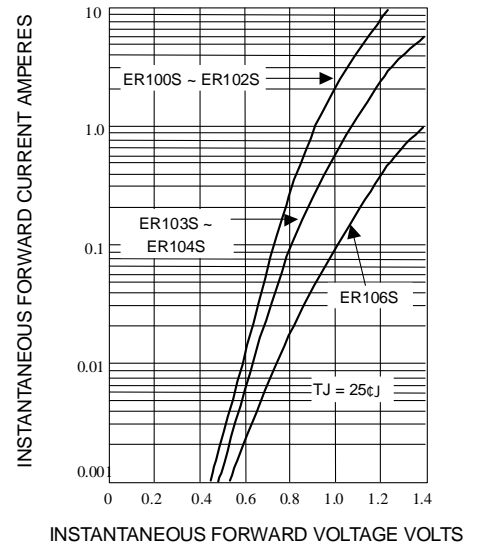


Fig. 4-FORWARD CURRENT DERATING CURVE

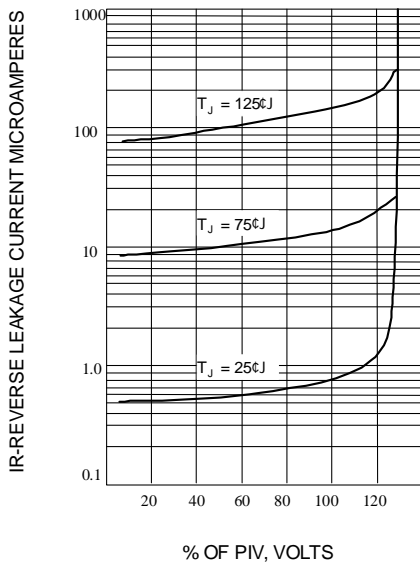


Fig. 5-TYPICAL REVERSE CHARACTERISTICS

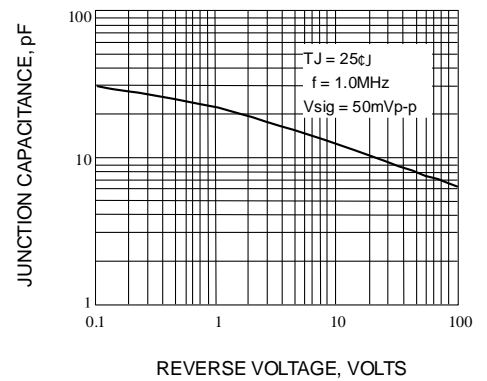


Fig. 6-TYPICAL JUNCTION CAPACITANCE