



# DATA SHEET

## ER200~ER206

### SUPERFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 600 Volts **CURRENT** 2.0 Ampere

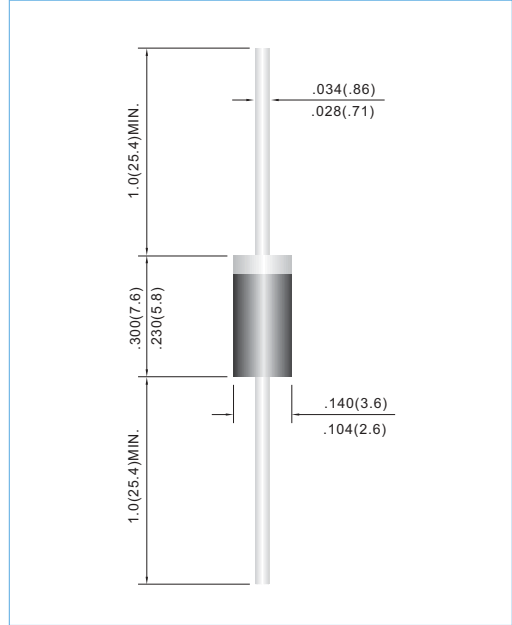
**DO-15** Unit: inch(mm)

#### 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

#### MECHANICAL DATA

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



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

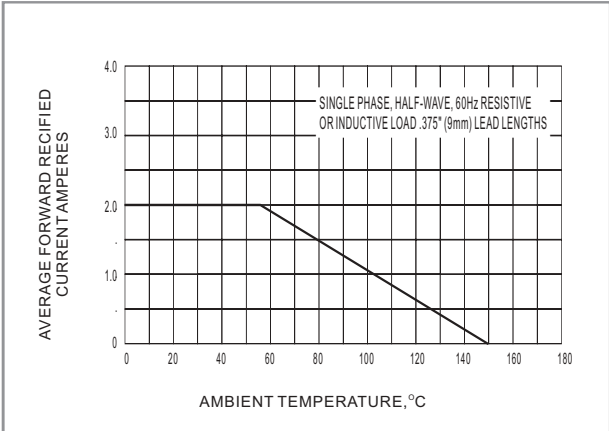
Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	ER200	ER201	ER201A	ER202	ER203	ER204	ER206	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ C$	$I_{AV}$	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	$V_F$	0.95				1.25		1.70	V
Maximum DC Reverse Current $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=125^\circ C$	$I_R$					5.0		200	$\mu A$
Maximum Reverse Recovery Time(Note 1)	$T_{RR}$					35			ns
Typical Junction capacitance (Note 2)	$C_J$					22			pF
Typical Junction Resistance(Note 3)	$R_{\theta JA}$					40			$^\circ C / W$
Operating and Storage Temperature Range	$T_J, T_{STG}$					-55 TO +150			$^\circ C$

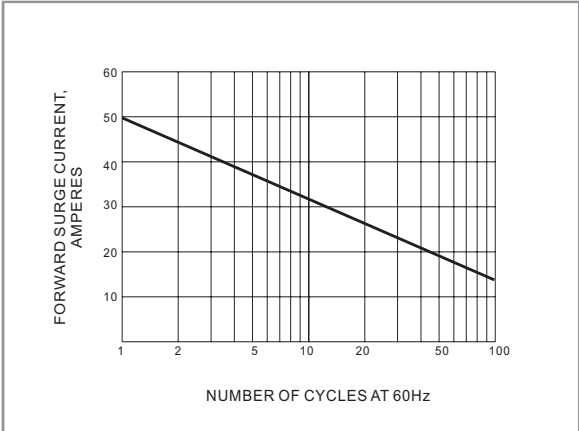
NOTES: 1. Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$   
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC  
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted



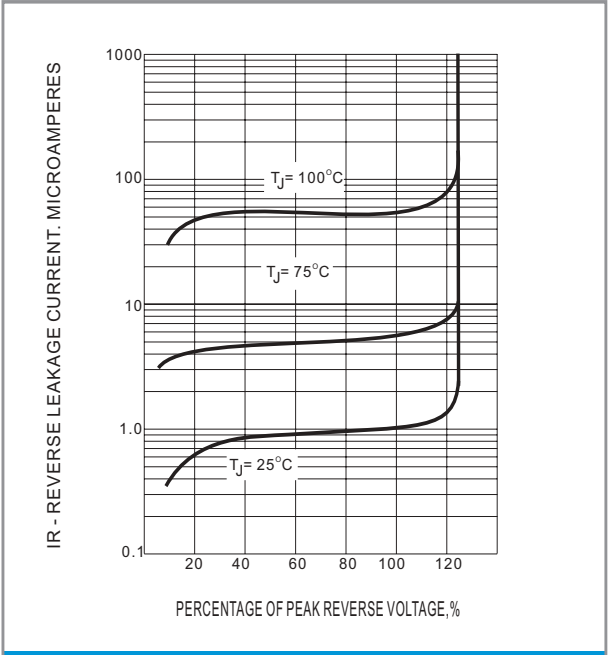
**RATING AND CHARACTERISTIC CURVES**



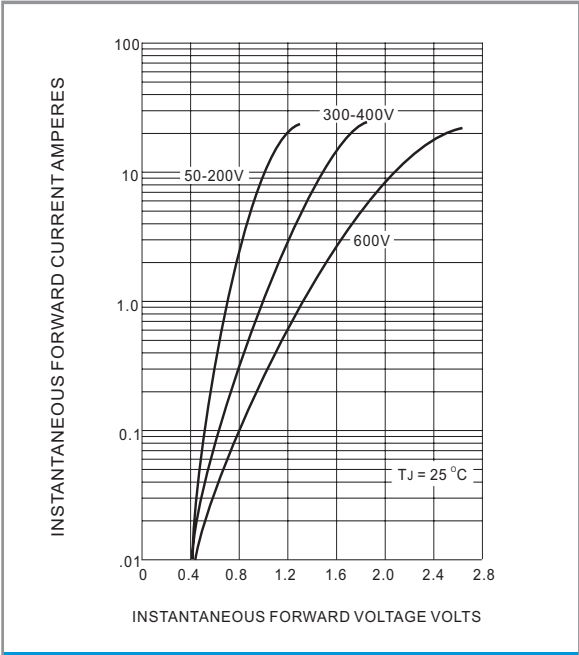
**FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT RATING**



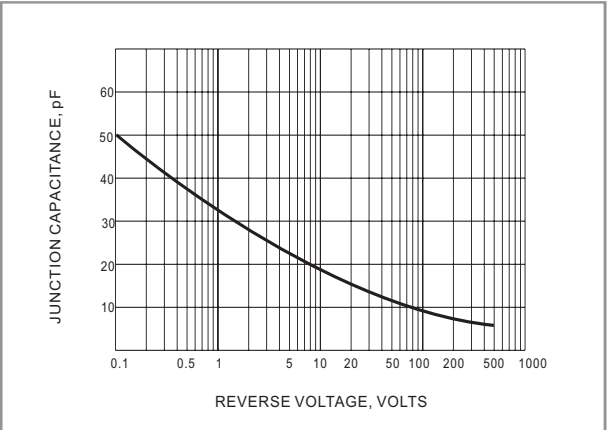
**FIG. 2 MAXIMUM NON-REPEITIVE SURGE CURRENT**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5 TYPICAL JUNCTION CAPACITANCE**