



# ER100 ~ ER108

## SUPERFAST RECOVERY RECTIFIERS

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

### FEATURES

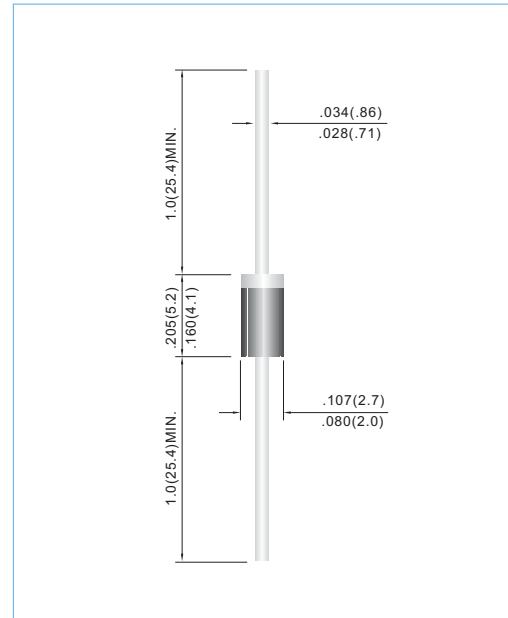
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- 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				$\mu\text{A}$	
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:  $I_F=.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=.25\text{A}$
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC



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## RATING AND CHARACTERISTIC CURVES

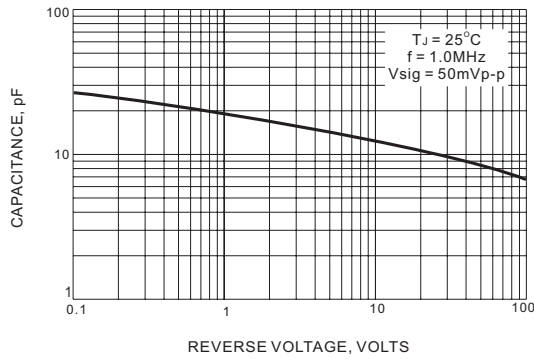


FIG. 1 TYPICAL JUNCTION CAPACITANCE

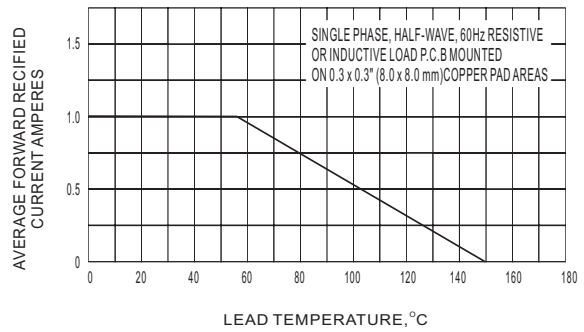


FIG. 2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

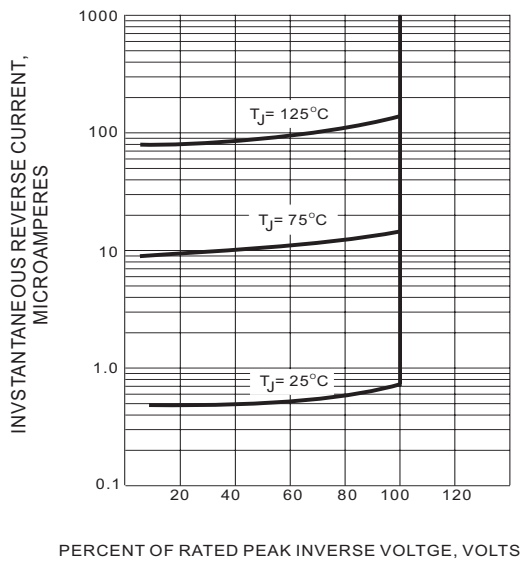


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

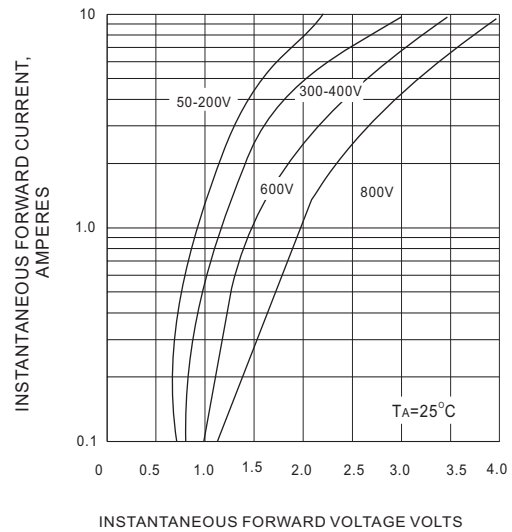


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

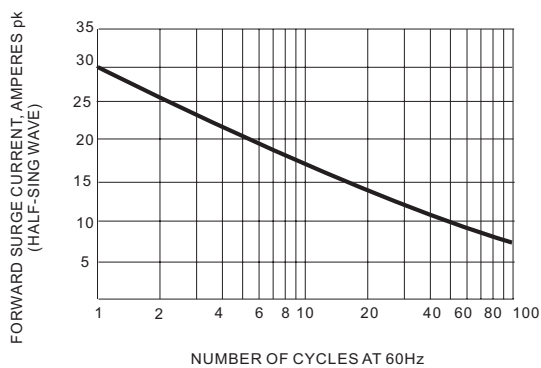


FIG. 5 MAXIMUM NON-REPEITIVE SURGE CURRENT



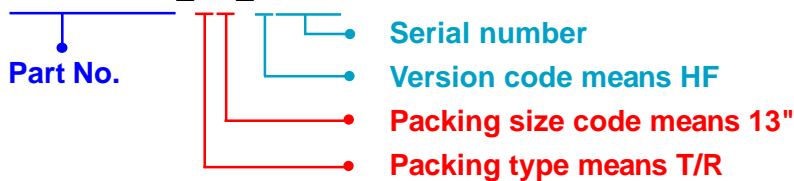
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## Part No\_packing code\_Version

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 <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> 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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