

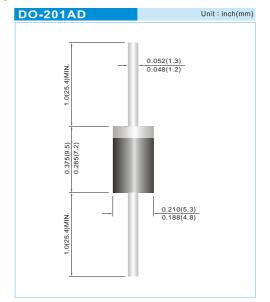


### **GLASS PASSIVATED SUPERFAST RECOVERY RECTIFIERS**

VOLTAGE 50 to 800 Volt CURRENT 3 Ampere

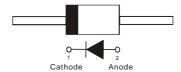
#### **FEATURES**

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- · Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Lead free in compliance with EU RoHS 2011/65/EU directive



### **MECHANICAL DATA**

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0403 ounce, 1.142 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	ER306A	ER308	UNITS
Maximum Recurrent Peak Reverse Voltage		50	100	150	200	300	400	600	700	800	V
Maximum RMS Voltage		35	70	105	140	210	280	420	490	560	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	700	800	V
Maximum Average Forward Current $0.375"(9.5mm)$ lead length at $T_A = 55$ °C	I <sub>F(AV)</sub>	3						А			
Peak Forward Surge Current : 8.3ms single half sine- wave superimposed on rated load	I <sub>FSM</sub>	125						А			
Maximum Forward Voltage at 3A DC	V <sub>F</sub>	0.95			1.	25	1.7	2	2.5	V	
Maximum DC Reverse Current at Rated DC $T_j=25^{\circ}$ C Blocking Voltage $T_j=125^{\circ}$ C	I <sub>R</sub>	1 300						μА			
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35						ns			
Typical Junction Capacitance (Note 2)	CJ	35						pF			
Typical Junction Resistance (Note 3)	$R_{_{\theta JA}}$	20					°C / W				
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150					°C				

NOTES:1. Reverse Recovery Test Conditions: IF=0.5A, IR=-1A, Irr=-0.25A

- 2. Measured at 1 MHz and applied reverse voltage of 4 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

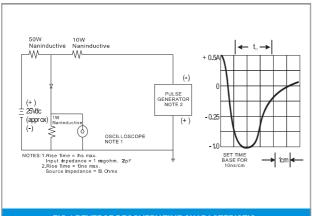


FIG.1 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

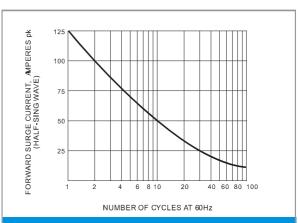


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

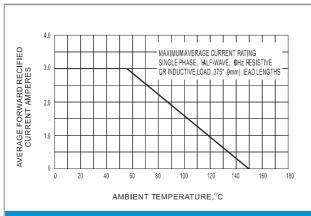
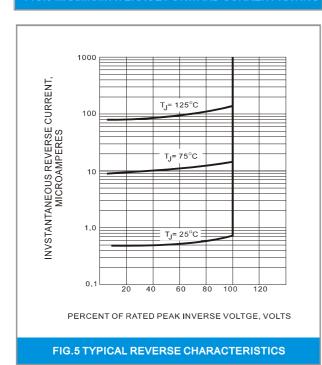
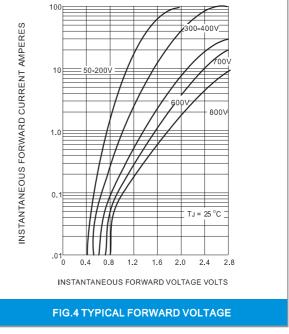
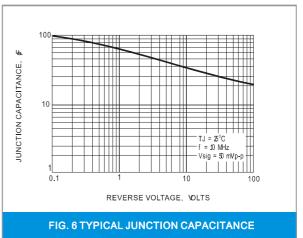


FIG.3 MAXIMUM AVERAGE FORWARD CURRENT RATING











## Part No\_packing code\_Version

ER300\_AY\_00001

ER300\_AY\_10001

ER300\_B0\_00001

ER300\_B0\_10001

ER300\_R2\_00001

ER300\_R2\_10001

## For example:



Packing Code XX					Version Code XXXXX				
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)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	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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