



#### **SURFACE MOUNT RECTIFIER**

VOLTAGE 200 Volt CURRENT 2 Ampere

#### **FEATURES**

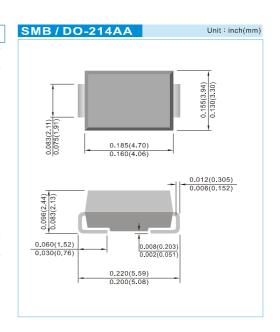
- · For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- · Glass passivated junction
- · Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

#### **MECHANICAL DATA**

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0032 ounces, 0.092 grams







#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	VALUE	UNITS
Maximum Recurrent Peak Reverse Voltage	V	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	V
Maximum Average Forward Current T <sub>L</sub> =110°C	   F(AV)	2	Α
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	FSM	50	Α
Maximum Forward Voltage at 2A	V <sub>F</sub>	0.95	V
Maximum DC Reverse Current at Rated DC T_j=25°C T_j=100°C	I R	1 150	μА
Maximum Reverse Recovery Time (Note 1)	t	35	ns
Typical Junction Capacitance (Note 2)	CJ	25	pF
Typical Thermal Resistance (Note 3)	R <sub>eul</sub>	20	°C / W
Typical Thermal Resistance (Note 3)	R <sub>euc</sub>	15	°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150	°C

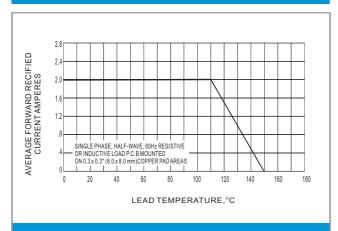
NOTES:1. Reverse Recovery Test Conditions:  $I_F$ =0.5A,  $I_R$ =-1A,  $I_{rr}$ =-0.25A

- 2. Measured at 1 MHz and applied  $V_r$  = 4 volts.
- 3. Mounted on a FR4 PCB, single-sided copper, with  $100 \mathrm{cm}^2$  copper pad area.





#### **RATING AND CHARACTERISTIC CURVES**



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

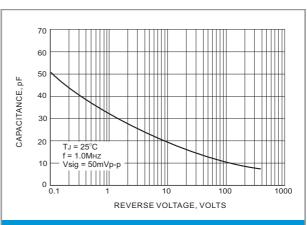


FIG.2 TYPICAL JUNCTION CAPACITANCE

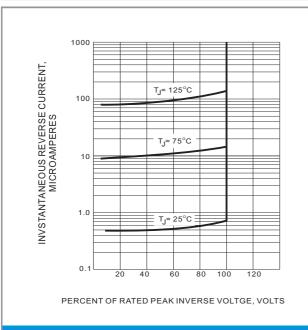


FIG.3 TYPICAL REVERSE CHARACTERISTICS

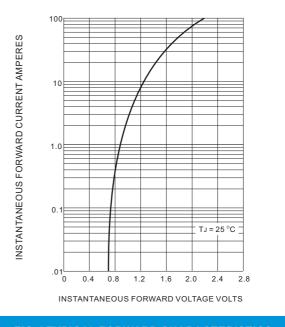
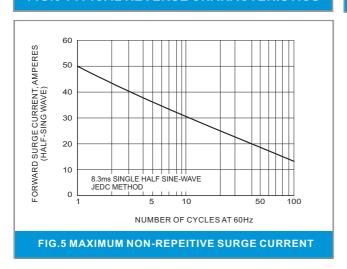


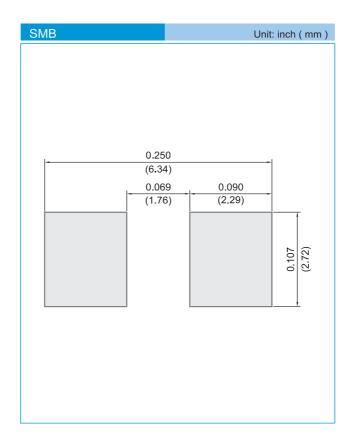
FIG.4 TYPICAL FORWARD CHARACTERISTICS







#### MOUNTING PAD LAYOUT



#### ORDER INFORMATION

• Packing information

T/R - 3K per 13" plastic Reel

T/R - 0.8K per 7" plastic Reel





### Part No\_packing code\_Version

ER2D-AU\_R1\_000A1 ER2D-AU\_R2\_000A1

### For example:



Packing Code XX				Version Code XXXXX		
Packing type	1st 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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