

US3A~US3M

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volt CURRENT 3 Ampere

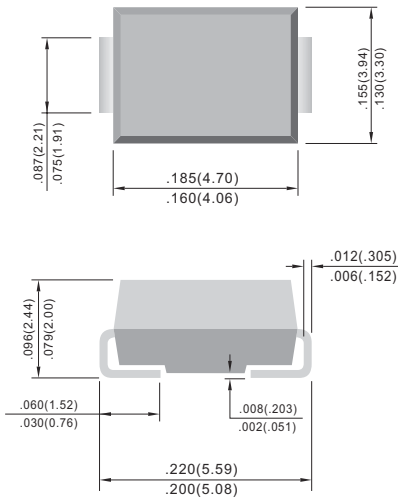


SMB/DO-214AA

Unit : inch(mm)

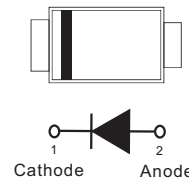
FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2011/65/EU directive



MECHANICAL DATA

- Case: JEDEC SMB/DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end



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	US3A	US3B	US3D	US3G	US3J	US3K	US3M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	3							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100							A
Maximum Forward Voltage at 3A	V_F	1		1.3		1.7		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R	5 150							μA
Typical Junction Capacitance (Note 2)	C_J	75				63			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	15							$^{\circ}C / W$
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50				75			ns
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

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. 8 mm² (0.013mm thick) land areas.

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RATING AND CHARACTERISTIC CURVES

