

SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current -3.0 Amperes

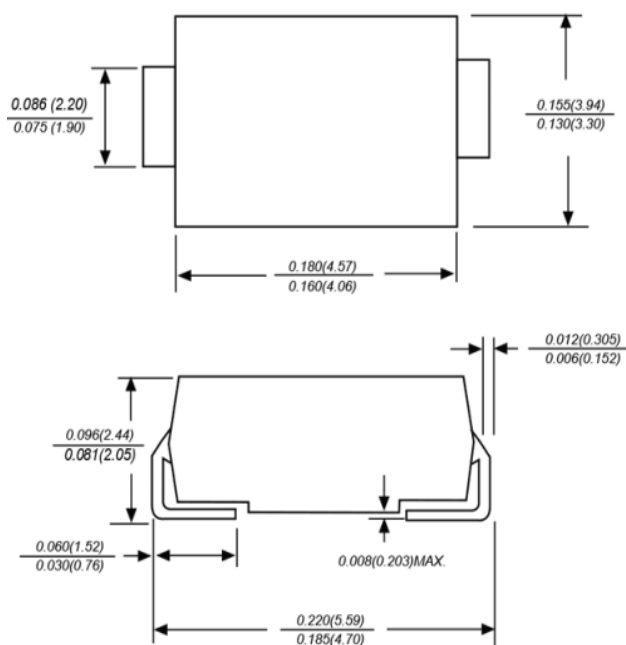
FEATURES

- Ideal for surface mount pick and place application
- Low profile package
- Built-in strain relief
- High surge capability
- Glass passivated chip
- Ultra fast recovery for high efficiency
- High temperature soldering guaranteed: 260°C/10sec/at terminal

MECHANICAL DATA

- Terminal: Plated leads solderable per MIL-STD 202E, method 208C
 - Case: Molded with UL-94 Class V-O recognized flame retardant epoxy
 - Polarity: Color band denotes cathode
- Weight: 0.09 grams

DO-214AA (SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Single-phase, half-wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

RATINGS	SYMBOL	US3AB	US3BB	US3DB	US3GB	US3JB	US3KB	US3MB	UNITS
Maximum Repetitive 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 Rectified Current (T _L =75°C)	I _{F(AV)}	3.0							A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I _{FSM}	100							A
Maximum Instantaneous Forward Voltage (at rated forward current)	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current (at rated DC blocking voltage) T _a =25°C T _a =100°C	I _R	10.0 250							μA
Maximum Reverse Recovery Time (Note 1)	trr	50				75			nS
Typical Junction Capacitance (Note 2)	C _J	45							pF
Typical Thermal Resistance (Note 3)	R _{θ(ja)}	25							°C/W
Storage and Operation Junction Temperature	T _{STG} , T _J	-50 to +150							°C

Note:

- 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
- 2.Measured at 1.0 MHz and applied voltage of $4.0V_{dc}$
- 3.Thermal resistance from junction to terminal mounted on 0.6"x0.6" (16 x 16 mm) copper pad area

RATINGS AND CHARACTERISTIC CURVES

