

ES2K

2.0AMPS. SURFACE MOUNT ULTRA FAST RECTIFIER

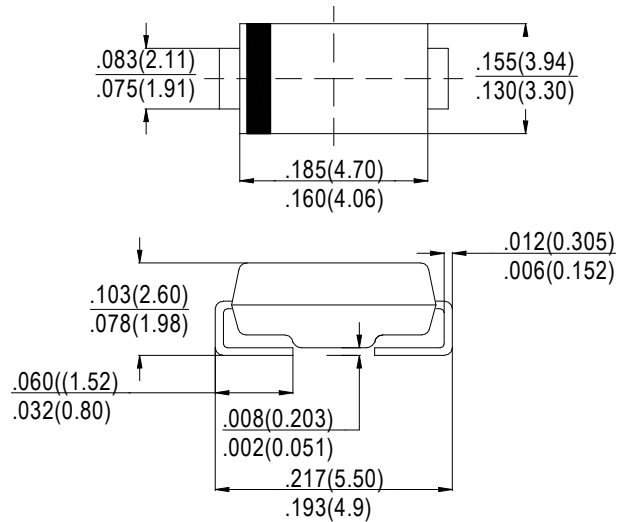
FEATURE

- . Glass Passivated clip
- . Low power loss, high efficiency
- . High surge capability
- . Super fast recovery time for high efficiency.
- . For surface mounted application.
- . Easy pick and place
- . High temperature soldering guaranteed:
260°C/10 seconds at terminals.

MECHANICAL DATA

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Weight: 0.096 grams

SMB (DO-214AA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number	SYM BOL	ES2K	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60	A
Maximum Forward Voltage at 2.0A DC	V_F	2.5	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	I_R	5.0 100.0	μA
Maximum Reverse Recovery Time (Note1)	t_{rr}	35	nS
Typical Junction Capacitance (Note2)	C_J	30	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$ $R_{(JC)}$	50 20	$^\circ\text{C/W}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$
Operation Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$

Note:

1. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Measured on P.C.Board with 10.0×10.0mm Cu Copper Pad Areas.