SHANGHAI SUNRISE ELECTRONICS CO., LTD.

US1AB THRU US1MB

SURFACE MOUNT ULTRA
FAST SWITCHING RECTIFIER

TECHNICAL SPECIFICATION

VOLTAGE: 50 TO 1000V CURRENT: 1.0A

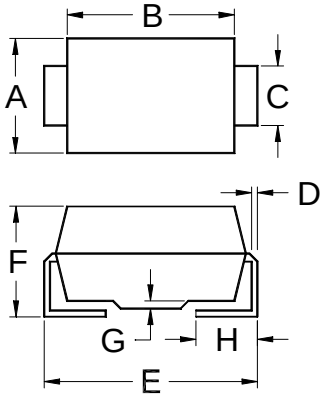
FEATURES

- 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

SMB/DO-214AA



	A	B	C	D
MAX.	.155(3.94)	.180(4.57)	.083(2.11)	.012(0.305)
MIN.	.130(3.30)	.160(4.06)	.077(1.96)	.006(0.152)
	E	F	G	H
MAX.	.220(5.59)	.096(2.44)	.008(0.203)	.060(1.52)
MIN.	.205(5.21)	.084(2.13)	.004(0.102)	.030(0.76)

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	US1 AB	US1 BB	US1 DB	US1 GB	US1 JB	US1 KB	US1 MB	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=100°C)	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage (at rated forward current)	V_F	1.0			1.4	1.7			V
Maximum DC Reverse Current T_a=25°C	I_R	5.0							μA
(at rated DC blocking voltage) T_a=100°C		200							μA
Maximum Reverse Recovery Time (Note 1)	trr	50				75			nS
Typical Junction Capacitance (Note 2)	C_J	20				10			pF
Typical Thermal Resistance (Note 3)	R_θ(ja)	32							°C/W
Storage and Operation Junction Temperature	T_{STG},T_J	-50 to +150							°C

Note:

1.Reverse recovery condition I_F=0.5A, I_R=1.0A,Irr=0.25A.

2.Measured at 1.0 MHz and applied voltage of 4.0V_{dc}

3.Thermal resistance from junction to terminal mounted on 5×5mm copper pad area