

US2AA~US2MA

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 2 Ampere

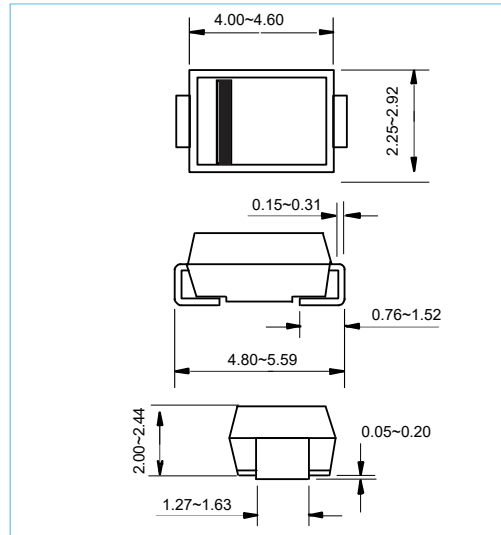
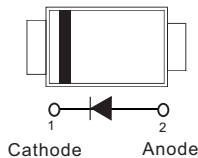
SMA / DO-214AC Unit:mm

FEATURES

- Ultra-Fast Recovery Time for High Efficiency
- Glass Passivated Junction
- High Current Capability
- Moisture Sensitivity Level 1
- Lead free in compliance with EU RoHS 2.0

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	US2AA	US2BA	US2DA	US2GA	US2JA	US2KA	US2MA	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 (see FIG.1)	$I_{F(AV)}$	2							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							A
Maximum Forward Voltage at 2 A	V_F		1.0		1.4		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		350		uA
Maximum Reverse Recovery Time(Note 1)	t_{rr}			50			75		ns
Thermal Resistance	$R_{\theta JL}$				30				$^{\circ}C / W$
Typical Junction Capacitance (Note2)	C_J				28				pF
Operating Junction Temperature Range	T_J				-55 to +150				$^{\circ}C$
Storage Temperature Range	T_{STG}				-55 to +150				$^{\circ}C$

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volt

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RATING AND CHARACTERISTIC CURVES

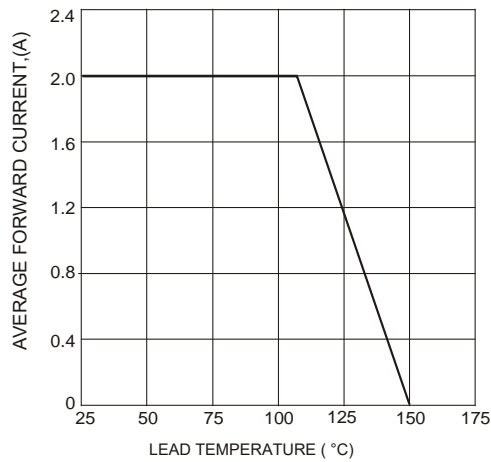


Fig. 1 Forward Current Derating Curve

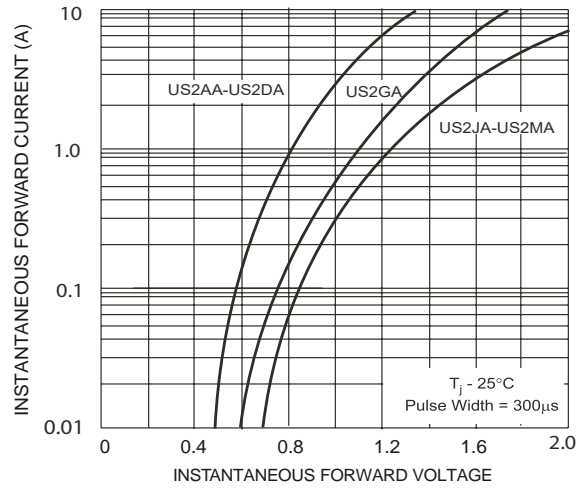


Fig. 2 Typical Forward Characteristics

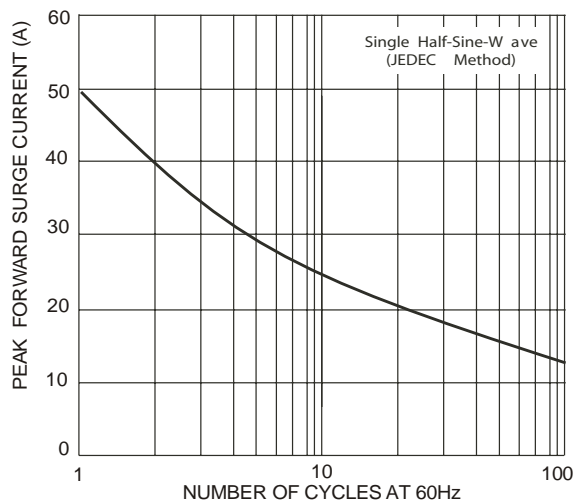


Fig. 3 Forward Surge Current Derating Curve

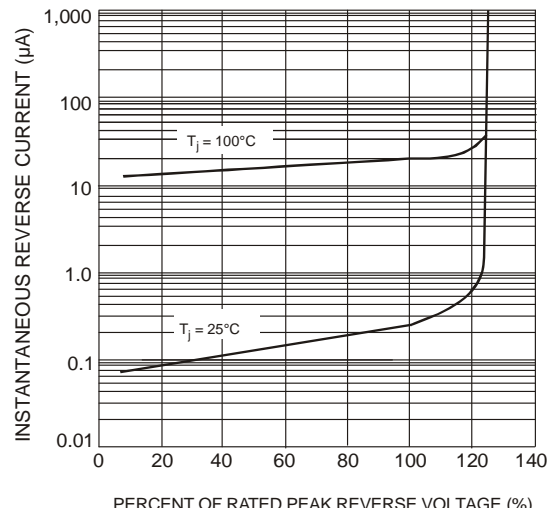


Fig. 4 Typical Reverse Characteristics

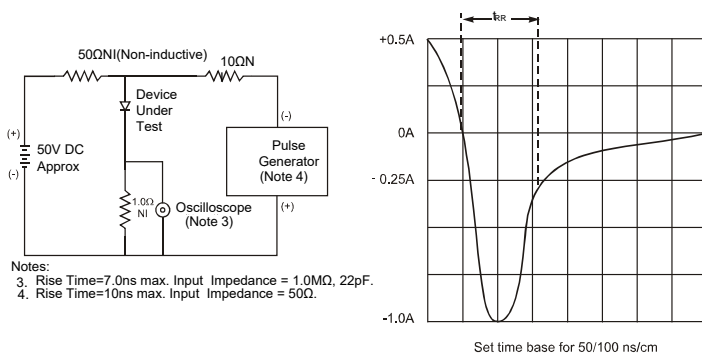


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

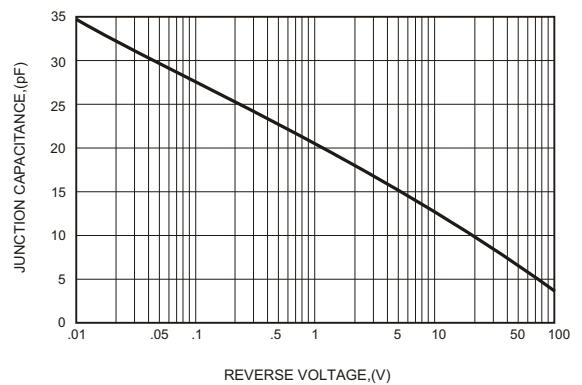


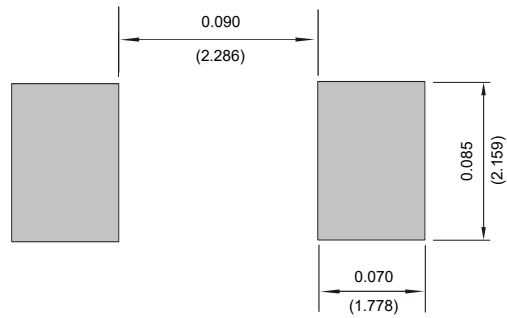
Fig. 6 Typical Junction Capacitance

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MOUNTING PAD LAYOUT

SMA / DO-214AC

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
US2AA~US2MA	SMA	13 Inch	5000