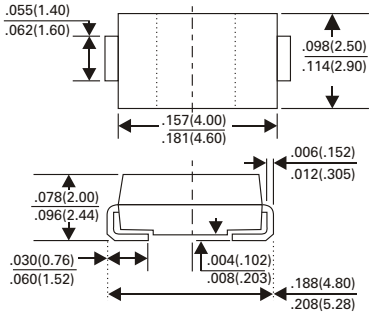
US2AA thru US2MA

SURFACE MOUNT REVERSE VOLTAGE 50 TO 1000 VOLTS

ULTRA FAST RECTIFIERS FORWARD CURRENT - 2.0 AMPERES

SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability classification 94V-0
- Glass passivated junction
- High temperature soldering 260°C/10seconds at terminals

MECHANICAL DATA

Case：JEDEC DO-214AC molded plastic
Terminals：Solder plated, solderable per MIL-STD-750, Method 2026
Polarity：Indicated by cathode band
Standard Packaging：12mm tape (ELA-481)
Weight：0.064grams

MAXIMUM RATIXGS 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%

	SYMBOL	US2AA	US2BA	US2DA	US2FA	US2GA	US2JA	US2KA	US2MA	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current @ T_L =100°C	$I_{(AV)}$	2.0								Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) T_A=55°C	I_{FSM}	50								Amps
MaximumInstantaneous Forward Voltage at 2.0A DC	V_F	1.0				1.3	1.7			Volts
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=100°C	I_R	5.0 100								μA
Typical Junctionn Capacitance (NOTE 2)	C_J	50					30			pF
Maximum Reverse Recovery Time (NOTE 1) T_J=25°C	T_{RR}	50					75			nS
Maximum Thermal Resistance (NOTE 3)	T_J	-55 to +150								°C
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150								°C

NOTES：
1. Rverse Recovery Test Condibons I_F=5A, I_R=1A, I_{RR}=0.25A
2. Measured at 1 MHz and applied reverse Voltag of 4.0VDC
3. Measured on P.C.Board with 0.2″ x0.2″ (5mmX5mm) Copper Pad Area.

SURFACE MOUNT REVERSE VOLTAGE 50 TO 1000 VOLTS

RATINGS AND CHARACTERISTIC CURVES US2AA THRU US2MA

Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

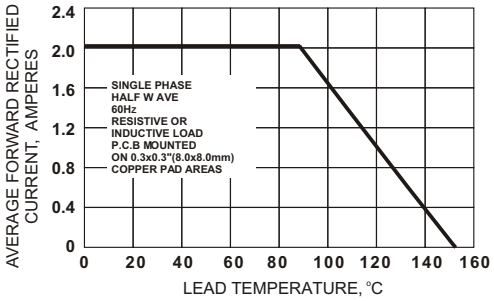


Fig. 2 - TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

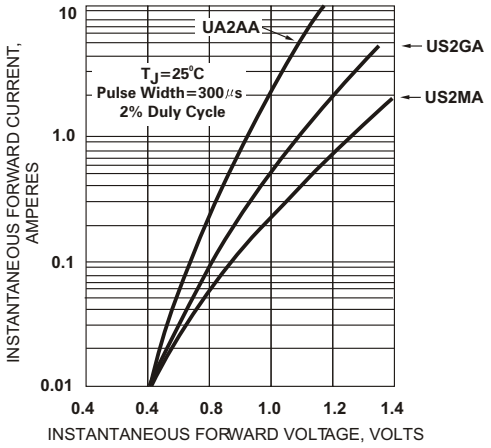


Fig. 3 - MAXIMUM FORWARD SURGE CURRENT

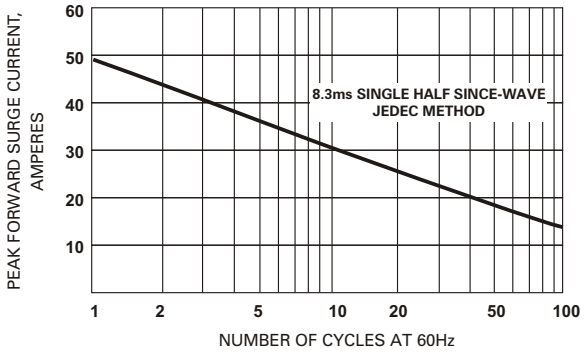


Fig. 4 - TYPICAL REVERSE CHARACTERISTICS

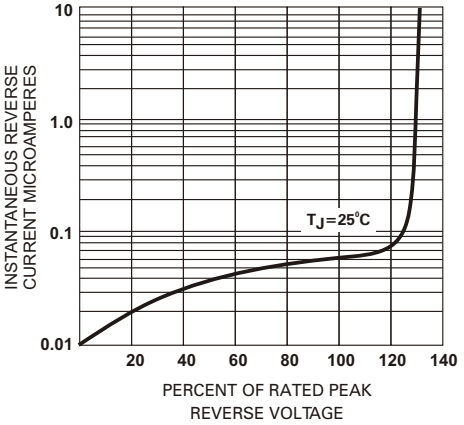


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

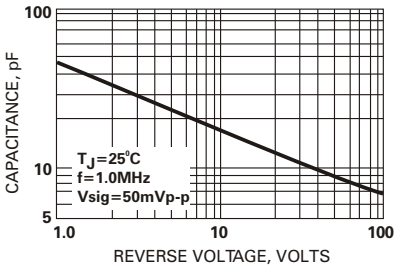


Fig. 6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM