

US2A THRU US2M

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 2.0 Ampere

Features

- Fast recovery glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 260°C/10S at terminals
- Component in accordance to ROHS 2002/95/1 and WEEE 2002/96/EC



DO-214AC (SMA)

Mechanical Data

- Case: JEDEC SOD-123FL mold plastic Body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band
- Weight: 0.0024 ounce, 0.068 gram

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	SYMBOLS	US 2A	US 2B	US 2D	US 2G	US 2J	US 2K	US 2M	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current At T _A =100°C	I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							Amps
Maximum Instantaneous Forward Voltage per at 2.0A	V _F	1.0		1.30		1.70		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage	I _R	5.0							μA
		100							
Typical Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	T _{RR}	50				75		nS	
Typical Junction Capacitance (Note 2)	C _J	50				30		pF	
Typical Thermal Resistance (Note 1)	R _{θJA}	50							°C/W
	R _{θJL}	17							
Operating Junction Temperature	T _J	(-55 to +150)							°C
Storage Temperature Range	T _{STG}	(-55 to +150)							°C

Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on PCB. with 0.2×0.2"(5.0 × 5.0mm) copper pad areas.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V

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Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

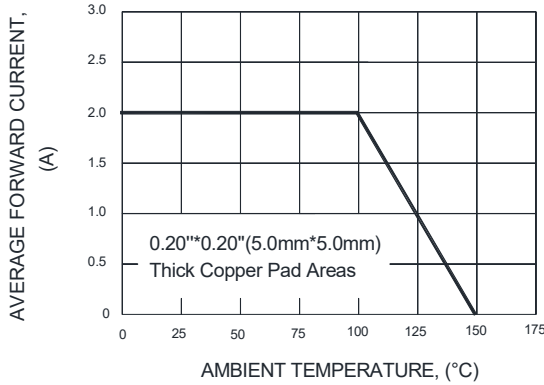


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

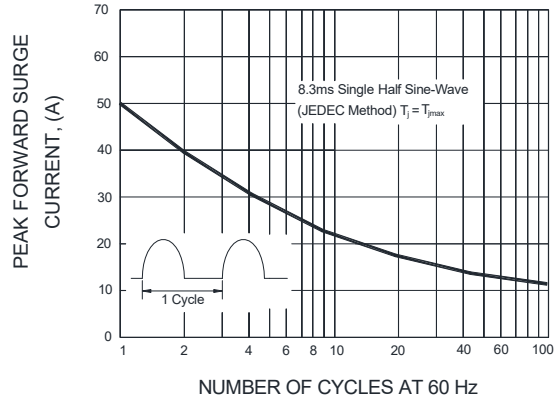


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

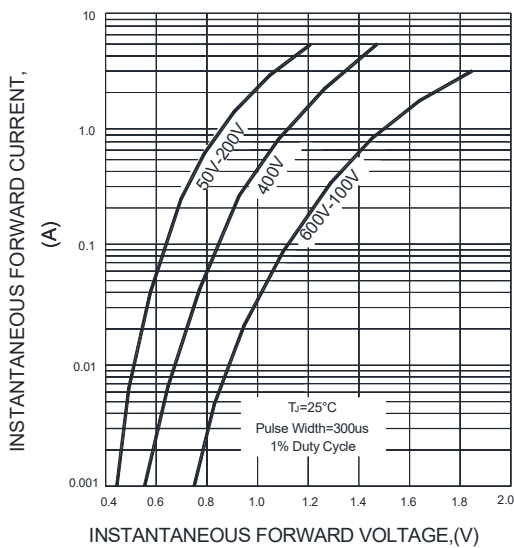


FIG.4-TYPICAL REVERSE CHARACTERISTICS

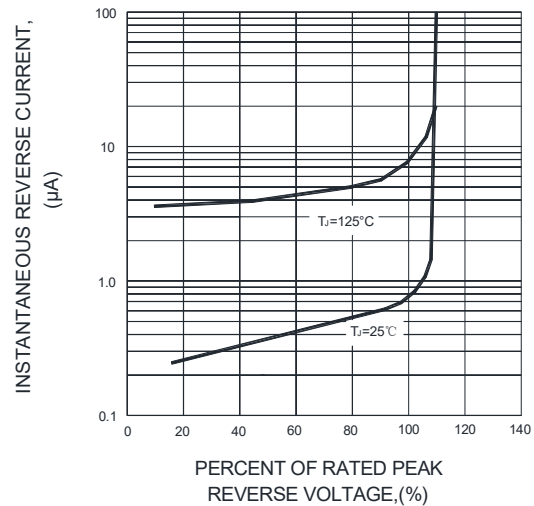


FIG.5-TYPICAL JUNCTION CAPACITANCE

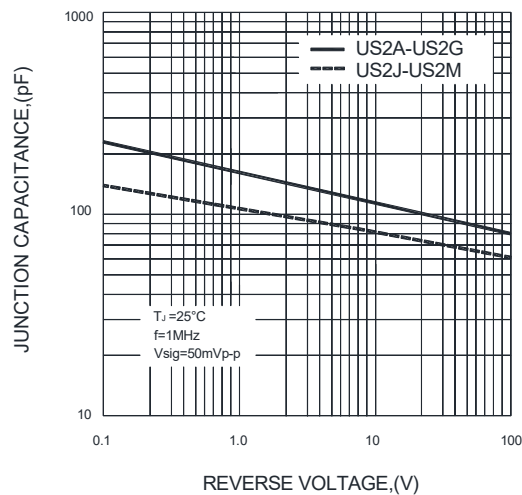
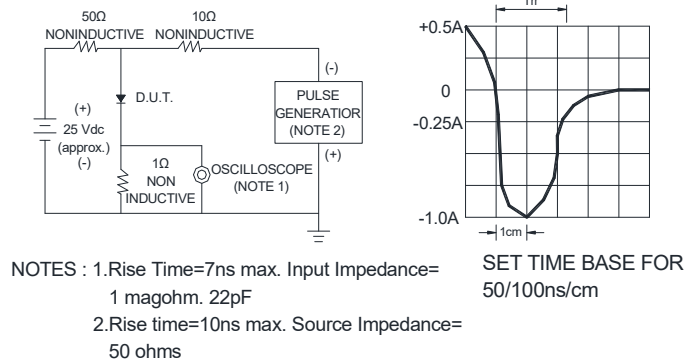


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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Package Outline Dimensions in inches (millimeters)
