

SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 - 1000 V
FORWARD CURRENT: 2.0 A

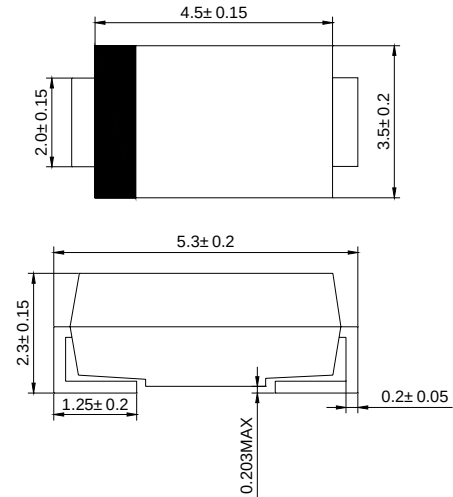
FEATURES

- ◇ Plastic package has underwriters laboratories flammability classification 94V-0
- ◇ For surface mount applications
- ◇ Glass passivated chip junctions
- ◇ Low profile package
- ◇ Easy pick and place
- ◇ Ultrafast recovery times for high efficiency
- ◇ Low forward voltage, low power loss
- ◇ Built-in strain relief, ideal for automated placement
- ◇ High temperature soldering:
250°C/10 seconds on terminals

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AA, molded plastic body over passivated chip
- ◇ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.003 ounces, 0.093 gram

DO-214AA(SMB)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		US2A	US2B	US2D	US2G	US2J	US2K	US2M	UNITS
Device marking code		US2A	US2B	US2D	US2G	US2J	US2K	US2M	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RWS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forw ard rectified current @ T _L =90°C	I _{F(AV)}	2.0							A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load(JEDEC Method)	I _{FSM}	50							A
Maximum instantaneous forw ard voltage at 2A	V _F	1.0				1.7			V
Maximum DC reverse current @T _A =25°C at rated DC blockjng voltage @T _A =125°C	I _R	10 350							μ A
Maximum reverse recovery time at I _F =0.5A I _R =1.0A I _{rr} =0.25A	t _{rr}	50				75			ns
Typical junction capacitance at 4.0V,1MH _z	C _J	50				30			pF
Maximum thermal resistance (NOTE1)	R _{θJA}	40							°C/W
	R _{θJL}	15							
Operating temperature range	T _J	-55-----+150							°C
Storage temperature range	T _{STG}	-55-----+150							°C

NOTE: 1.P.C.B.mounted on 0.2X0.2"(5.0X5.0mm)copper pad area

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FIG.1 – FORWARD CURRENT DERATING CURVE

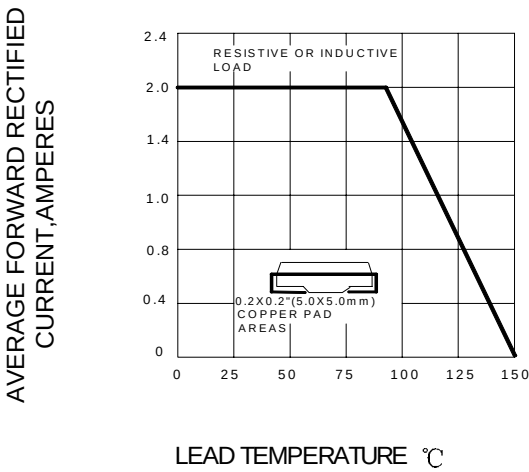


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

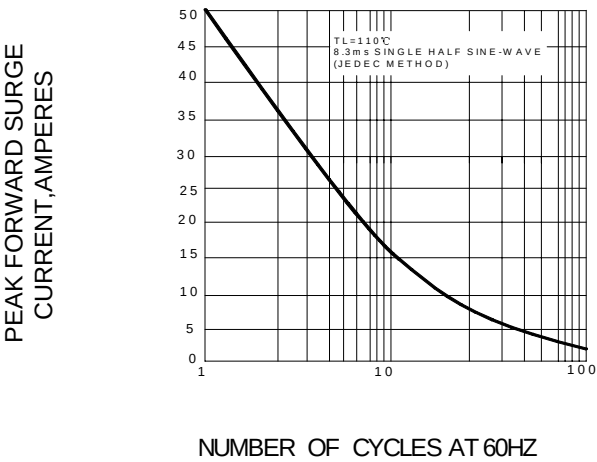


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

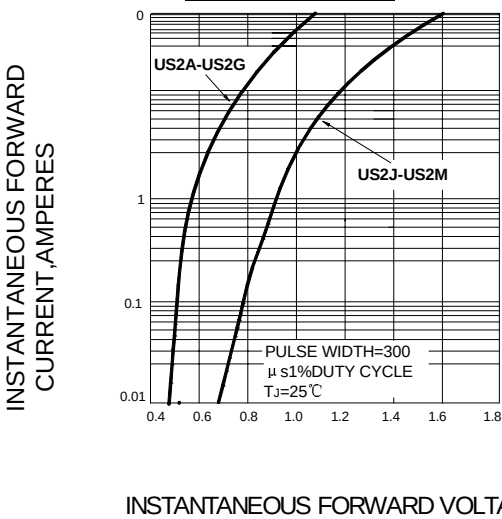


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

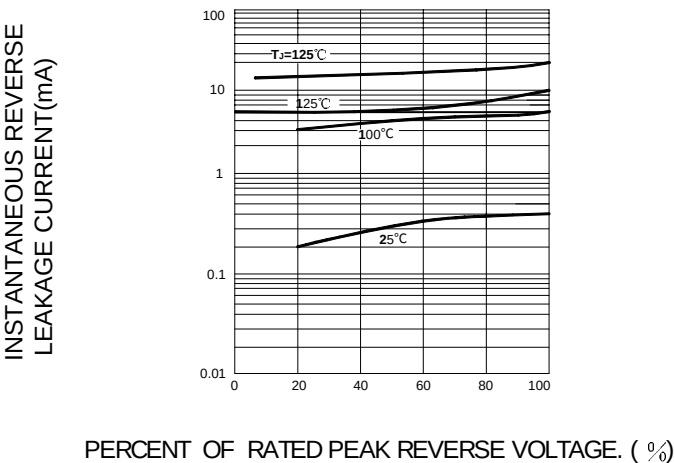


FIG.5 – TYPICAL JUNCTION CAPACITANCE

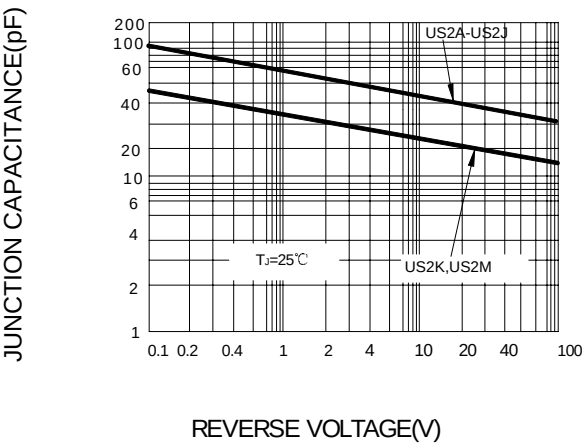


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

