



US3AB-US3MB

Surface Mount Rectifiers

REVERSE VOLTAGE: 50 - 1000 V

FORWARD CURRENT: 3.0 A

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- For surface mount applications
- 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

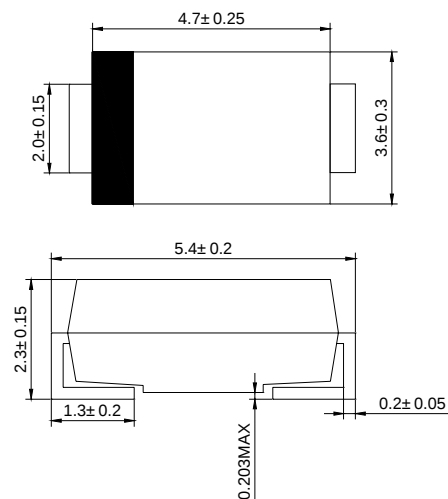
Mechanical Data

Case: JEDEC DO-214AA, molded plastic body over passivated chip

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

		US3AB	US3BB	US3DB	US3GB	US3JB	US3KB	US3MB	UNITS
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 at T _L =110°C	I _{F(AV)}	3.0							A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load(JEDEC Method)	I _{FSM}	100.0							A
Maximum instantaneous forw ard voltage at 3A	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	10.0 500							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	70				50			pF
Maximum thermal resistance (NOTE1)	R _{θJA}	25							°C/W
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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Ratings AND Characteristic Curves

FIG.1 – FORWARD CURRENT DERATING CURVE

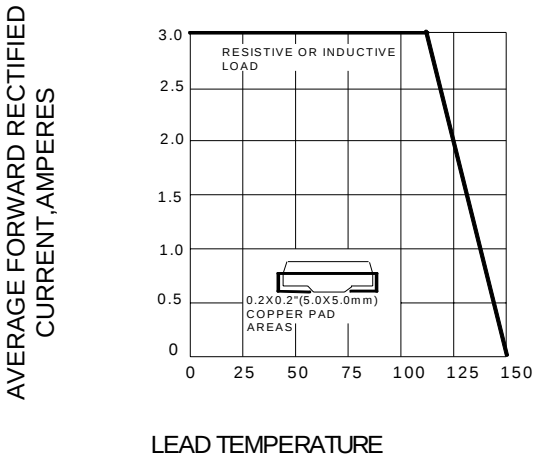


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

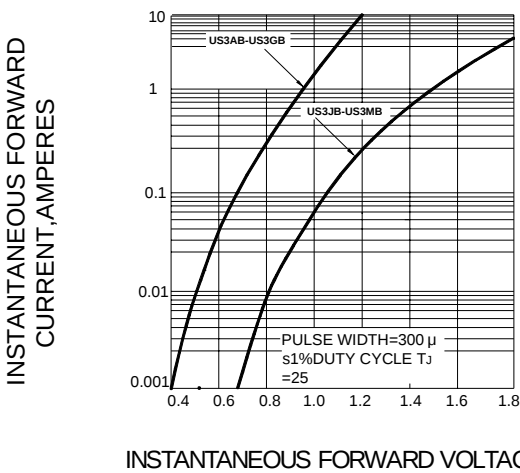


FIG.5 – TYPICAL JUNCTION CAPACITANCE

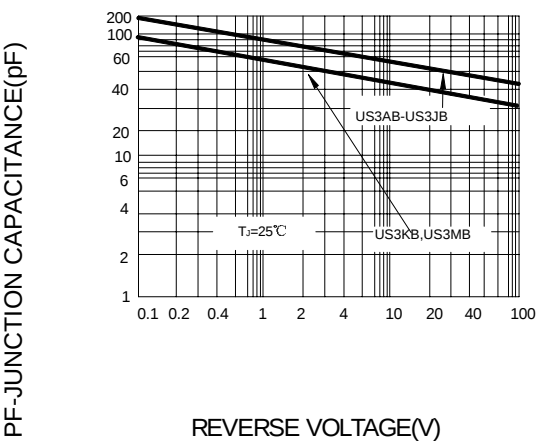


FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

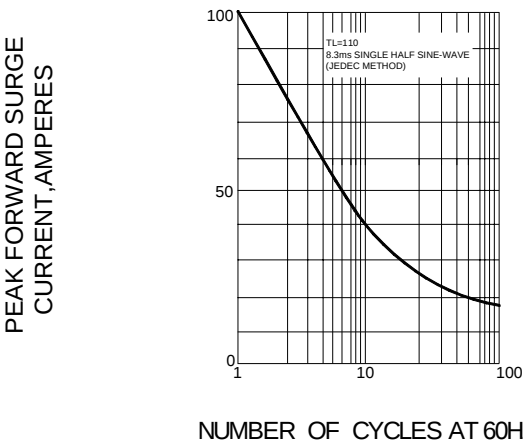


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

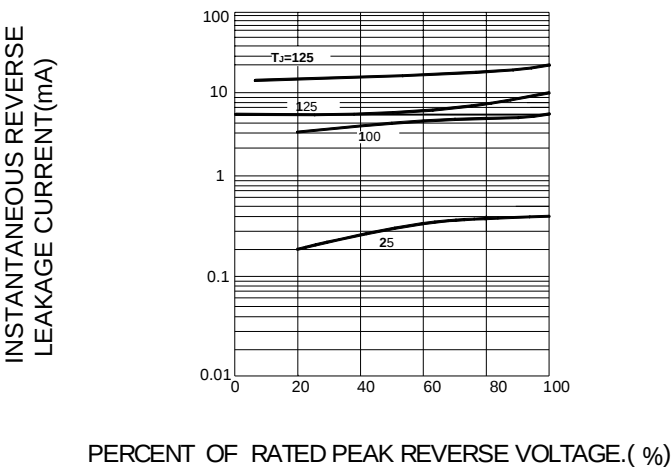


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

