Surface Mount High Efficiency Rectifier

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Built-in strain relief, ideal for automated placement
- Fast switching speed for high efficiency
- Glass passivated chip junction
- High temperature soldering guaranteed: 260℃/10 seconds
- RoHS and REACH Compliance

DO-214AA (SMB)

RoHS COMPLIANT

Mechanical Data

Case:	JEDEC DO-214AA molded plastic over glass passivated chip
Polarity:	Color band denotes cathode end.
Terminal:	Solder plated, solderable per MIL-STD 750, Method 2026
Mounting Position:	/
Weight:	0.003 ounce, 0.093 gram

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	**V**	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	**V**	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	**V**	
I(AV)	Max Average Forward Rectified Current	1.0							**A**	TA=55℃
IFSM	Peak Forward Surge Current, 8.3ms single half sine	30							**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150							℃	

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.0			1.3		1.7		**V**	1.0A
RθJA	Typical Thermal Resistance	88							℃/W	Note 2
RθJL		28								
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5							**μA**	TA=25℃
		100								TA=125℃
TRR	Maximum reverse recovery time	50				75			**nS**	Note 1
CJ	Typical Junction capacitance	20				15			**pF**	Measured at 1.0MHz/4.0V

Note:

1. Test conditions: IF= 0.5A, IR=1.0A, IRR = 0.25A
2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.2”x 0.2”(5.0x5.0mm) copper pad areas.

US1AB ~ US1MB

RATINGS AND CHARACTERISTIC CURVES US1A THRU US1M

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

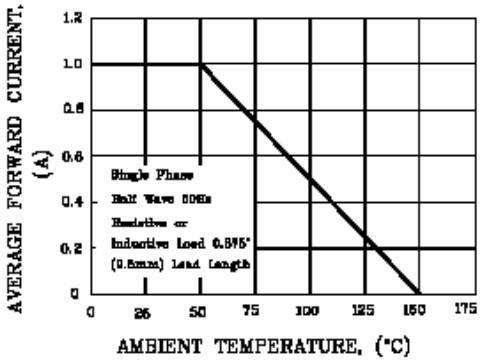


FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

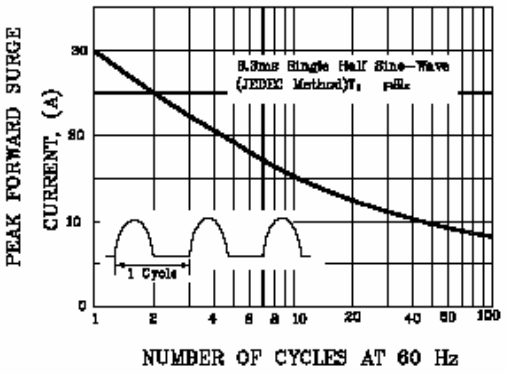


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

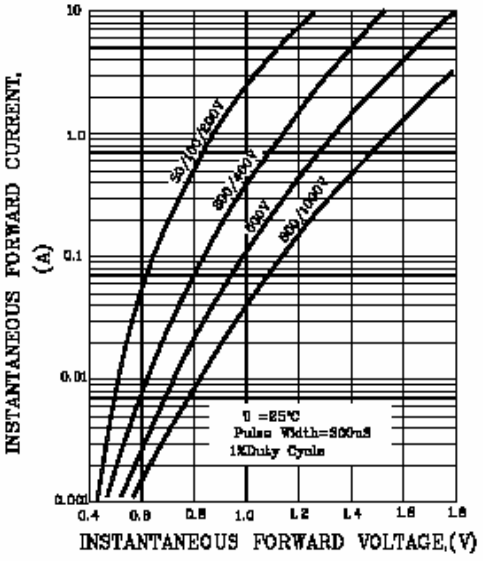


FIG.4–TYPICAL REVERSE CHARACTERISTICS

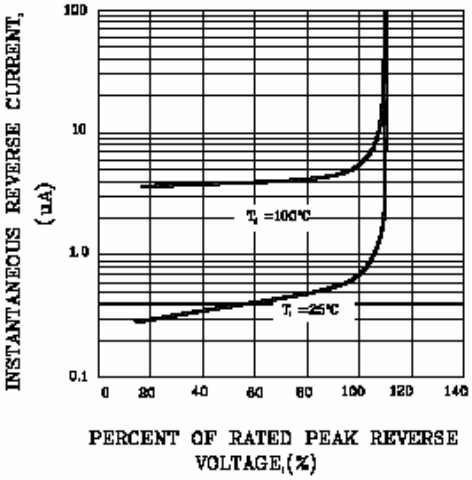


FIG.5–TYPICAL JUNCTION CAPACITANCE

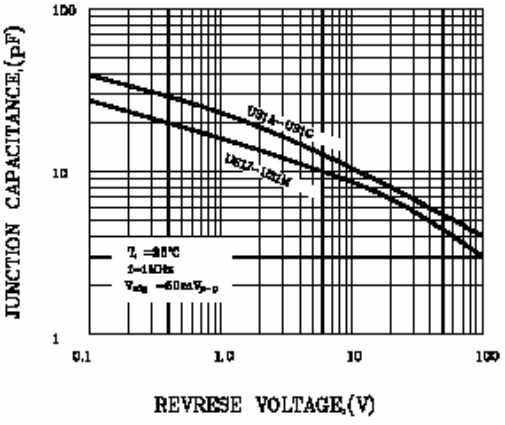
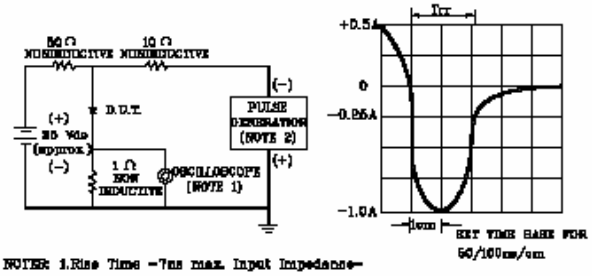


FIG.6–TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

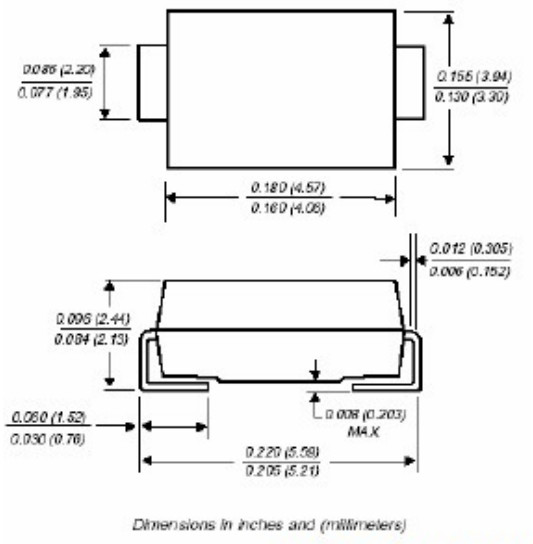


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms

US1AB ~ US1MB

Dimensions in inches (mm)



Dimensions in inches and (millimeters)

DO-214AA (SMB)

Contact us:

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