Surface Mount High Efficiency Rectifier

Features

RoHS COMPLIANT

- Low Leakage current
- Ideal for surface mounted applications
- Open Junction chip
- High temperature soldering guaranteed 265°C /5 seconds 260°C/ 10 seconds
- RoHS and REACH compliance

Mechanical Data

Case:	JEDEC DO-214AC 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:	0.078 gram

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

Symbol	Description	US1A-H	US1B-H	US1D-H	US1G-H	US1J-H	US1K-H	US1M-H	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	US1A-H	US1B-H	US1D-H	US1G-H	US1J-H	US1K-H	US1M-H	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℃
		1000								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.

US1A-H ~ US1M-H

RATINGS AND CHARACTERISTIC CURVES US1A-H THRU US1M-H

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

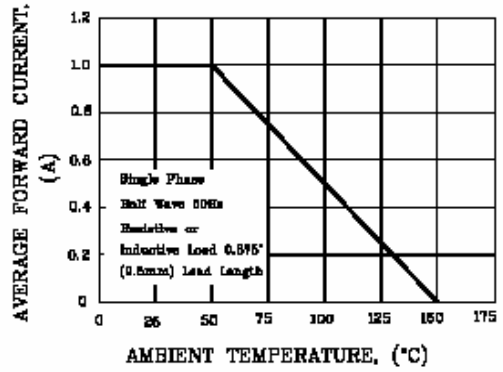


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

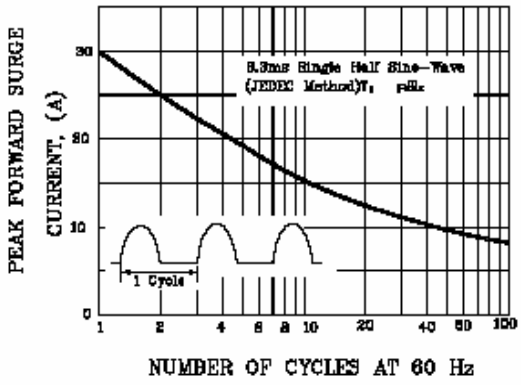


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

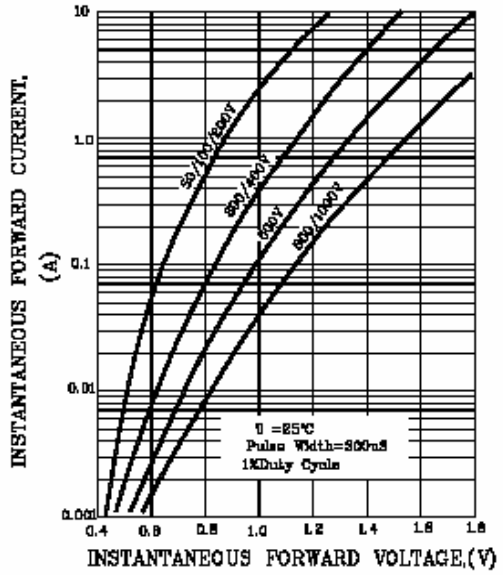


FIG.4—TYPICAL REVERSE CHARACTERISTICS

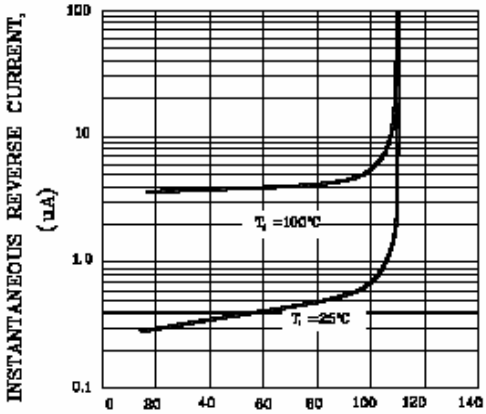


FIG.5—TYPICAL JUNCTION CAPACITANCE

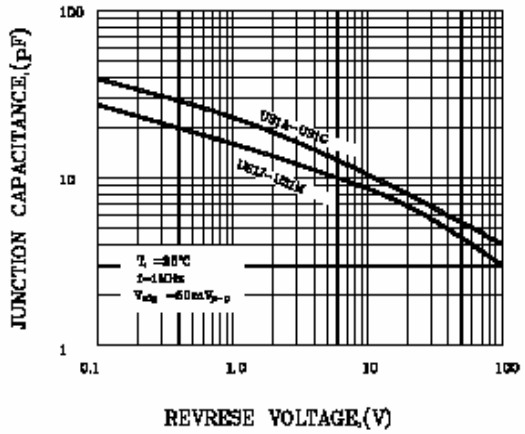
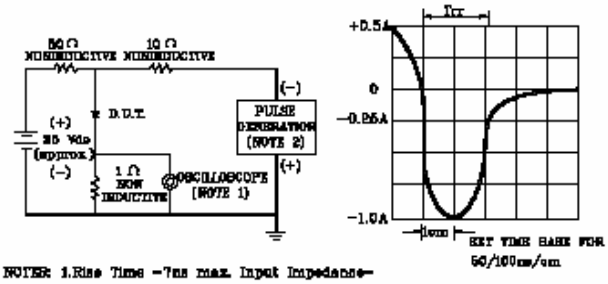


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

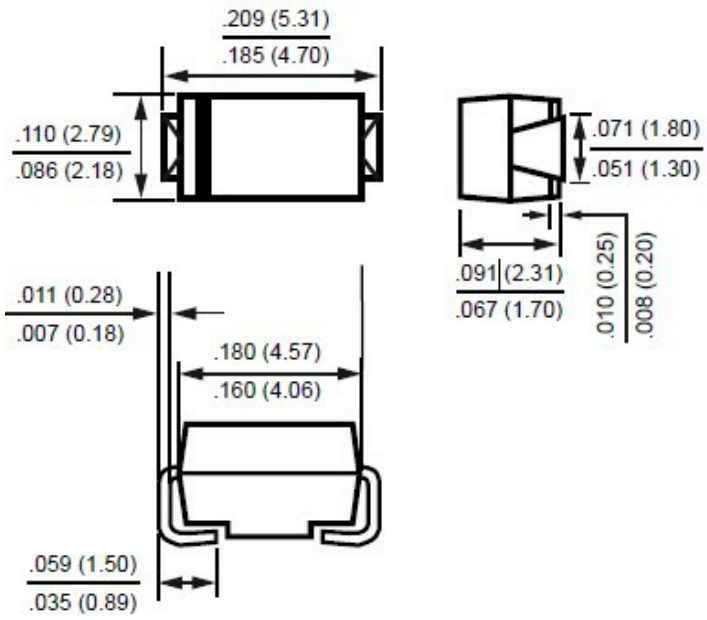


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm 22pF

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

US1A-H ~ US1M-H

Dimensions in inches (mm)



SMA-H

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