Surface Mount Glass Passivated Rectifier

Features

- Plastic package has UL flammability classification 94V-0
- Glass passivated chip junction
- Built in strain relief
- Super fast switching speed for high efficiency
- High temperature soldering guaranteed: 260℃/10 seconds
- RoHS and REACH Compliance

DO-214AB (SMC)

Mechanical Data

Case:	JEDEC DO-214AB transfer molded plastic
Polarity:	Color band denots cathode end
Terminal:	Solder plated, solderable per MIL-STD 750, Method 2026
Weight:	0.007 ounce, 0.25 gram

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

Symbol	Description	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3J	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	**V**	
VRMS	Max RMS Voltage	35	70	105	140	210	280	420	**V**	
VDC	Max DC Blocking Voltage	50	100	150	200	300	400	600	**V**	
I(AV)	Max Average Forward Rectified Current	3.0							**A**	TA=55℃ Note 2
IFSM	Peak Forward Surge Current	100							**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150							**℃**	
RθJA	Typical Thermal Resistance	55							**℃/W**	Note 2
RθJL		17								

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

Symbol	Description	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3J	Unit	Conditions
VF	Max Instantaneous Forward Voltage	0.95		1.25		1.7			**V**	3.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							**μA**	TA=25℃
		300								TA=125℃
TRR	Maximum reverse recovery time	35							**nS**	Note 1
CJ	Typical Junction capacitance	45			30				**pF**	Measured at 1.0MHz / 4.0V

Note:

1. Reverse recovery test conditions: I_F= 0.5A, I_R=1.0A, I_{RR} = 0.25A
2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.3" x 0.3" (8.0 x 8.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES ES3A THRU ES3J

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

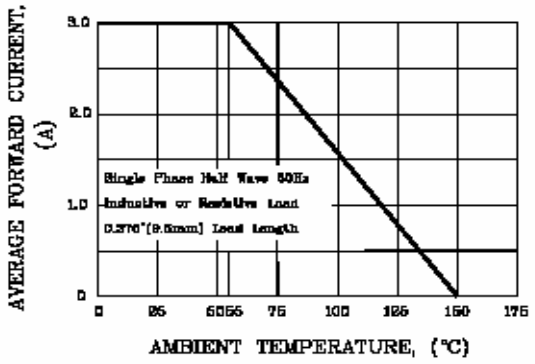


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

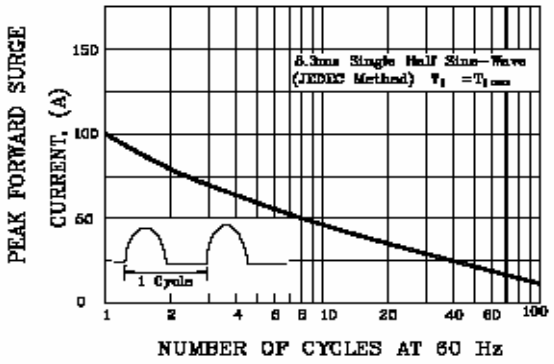


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

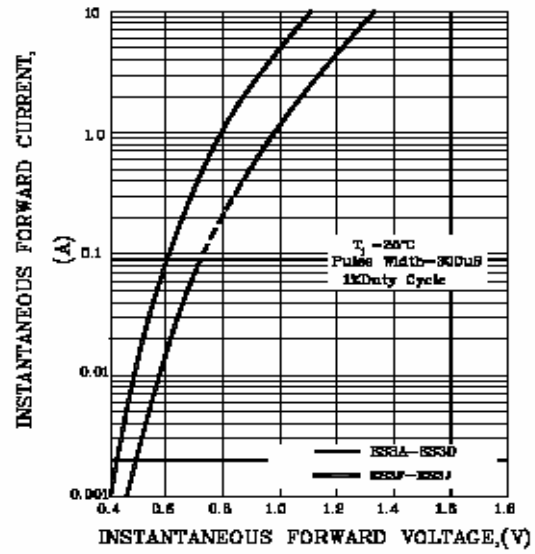


FIG.4—TYPICAL REVERSE CHARACTERISTICS

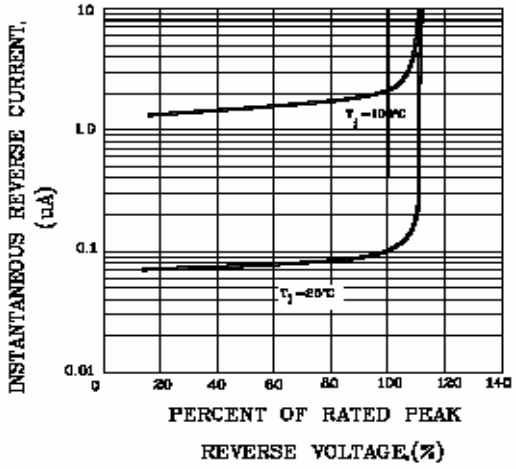


FIG.5—TYPICAL JUNCTION CAPACITANCE

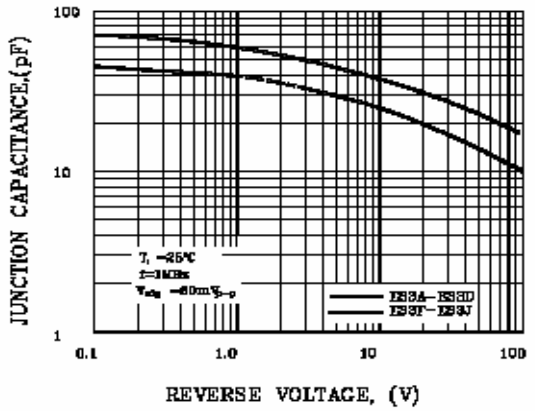
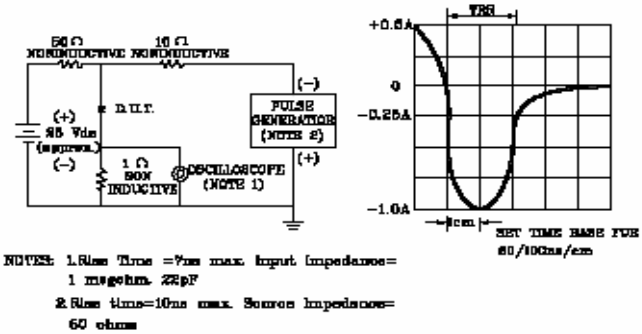


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

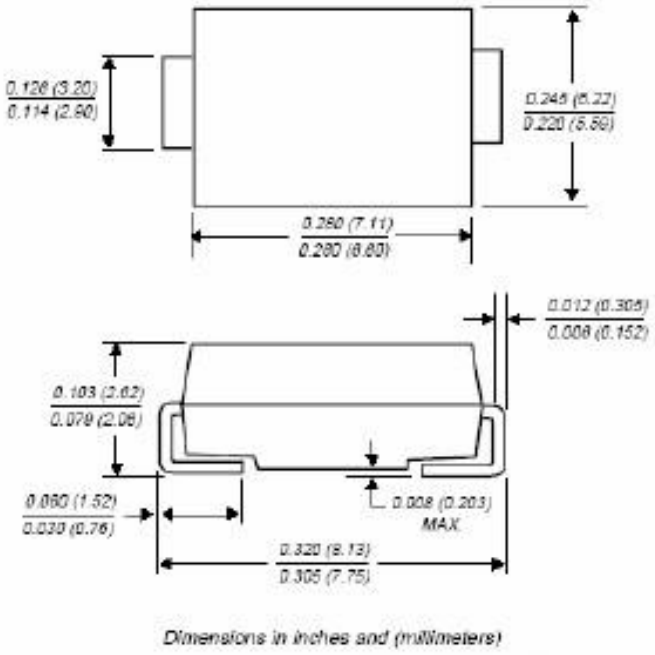


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

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

ES3A ~ ES3J

Dimensions in inches (mm)



Dimensions in inches and (millimeters)

DO-214AB (SMC)

Contact us:

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