Surface Mount Glass Passivated Rectifier

Features

- Glass passivated chip junction
- Low profile surface mount package
- Ultra fast recovery time for high efficiency
- High temperature soldering guaranteed:250℃/10 seconds at terminals
- Also available in the SMB package, add suffix B, i.e. ES1AB
- RoHS and REACH Compliance

DO-214AC (SMA)

RoHS COMPLIANT

Mechanical Data

Case:	SMA-H, transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Solder plated, solderable per MIL-STD 750, Method 2026
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.002 Ounce, 0.064 gram

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

Symbol	Description	ES1AH	ES1BH	ES1CH	ES1DH	ES1FH	ES1GH	ES1JH	ES1KH	ES1MH	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	800	1000	**V**	
VRMS	Max RMS Voltage	35	70	105	140	210	280	420	560	700	**V**	
VDC	Max DC Blocking Voltage	50	100	150	200	300	400	600	800	1000	**V**	
I(AV)	Max Average Forward Rectified Current	1.0									**A**	TC=100℃
IFSM	Peak Forward Surge Current	30									**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature	-55 to +150									℃	

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

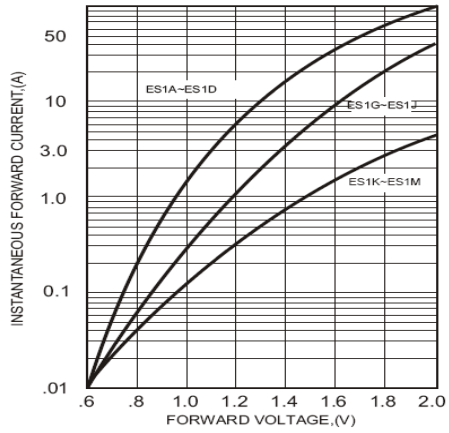
Symbol	Description	ES1AH	ES1BH	ES1CH	ES1DH	ES1FH	ES1GH	ES1JH	ES1KH	ES1MH	Unit	Condition
VF	Max Instantaneous Forward Voltage	0.95				1.35			1.7		**V**	1.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0									**μA**	TA=25℃
		100										TA=125℃
TRR	Maximum reverse recovery time	50				75			100		**nS**	Note 1
Rθ-JA	Maximum Thermal Resistance	34									**℃/W**	Note 2
CJ	Typical Junction capacitance	45									**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 0.2" x 0.2" (5.0 x 5.0mm) copper pad areas.

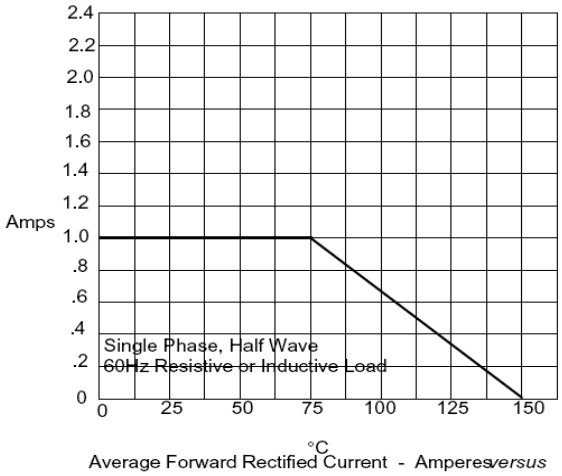
Typical Characteristics Curves

Figure 1
Typical Forward Characteristics



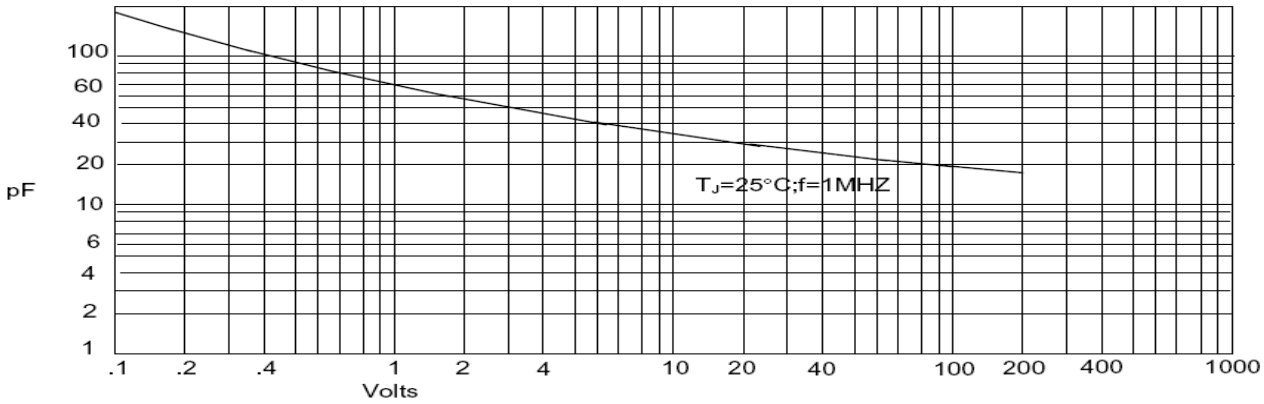
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



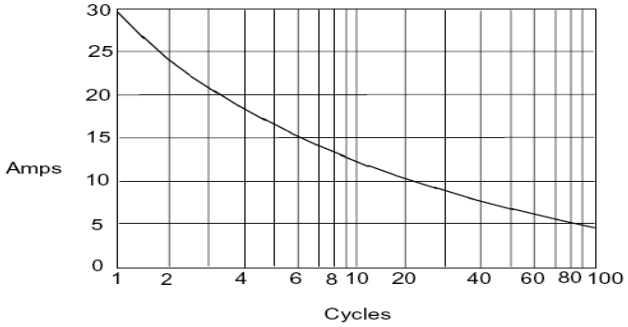
Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



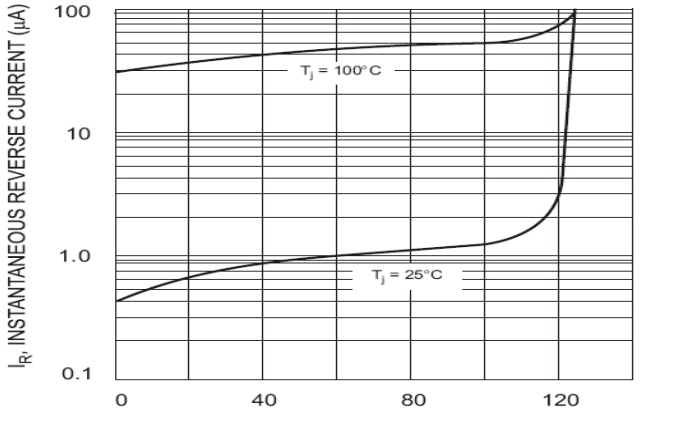
Junction Capacitance - pF*versus*
Reverse Voltage - Volts

Figure 4
Peak Forward Surge Current



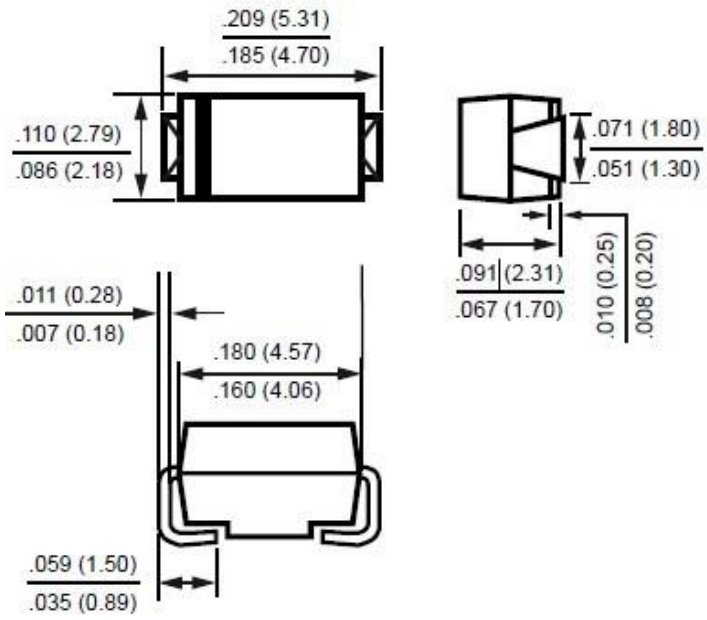
Peak Forward Surge Current - Amperes*versus*
Number Of Cycles At 60Hz - Cycles

Typical Reverse Characteristics



ES1A-H ~ ES1M-H

Dimensions in inches (mm)



Dimensions in inches and (millimeters)

SMA-H

Contact us:

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