



Surface Mount Super Fast Glass Passivated Rectifiers

Reverse Voltage - 50 to 600 Volts
Forward Current - 1.0 Amperes

Features

- Fast switching for high efficiency
- Low cost
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Meet UL flammability classification 94V-0

Mechanical Data

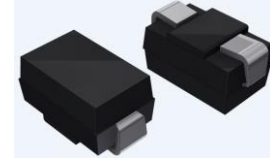
- Case: JEDEC SMA Molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

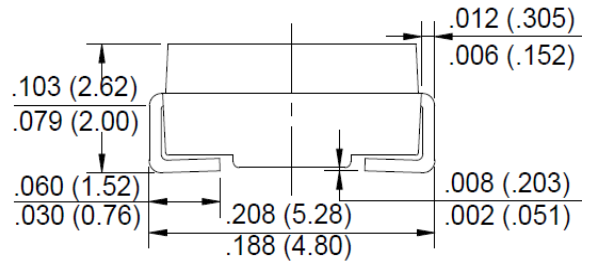
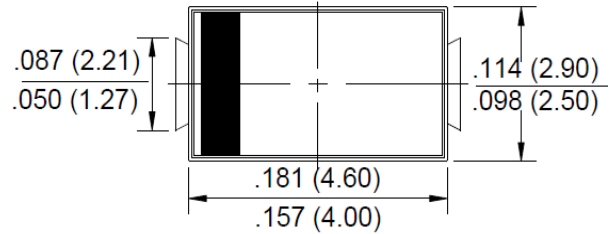
Applications

- For use in SMPS, high frequency inverters, PWM and polarity protection applications

A-SMA



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	ES1AA	ES1BA	ES1DA	ES1GA	ES1JA	Unit	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	V	
Maximum RMS Voltage	VRMS	35	70	140	280	420	V	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V	
Maximum Average Forward Rectified Current @TA=55°C	I(AV)	1.0						A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	30						A
Peak Forward Voltage at 1.0A DC (Note1)	VF	0.95			1.25	1.70	V	
Maximum DC Reverse Current @TJ=25°C	IR	5.0						µA
at Rated DC Blocking Voltage @TJ=100°C		100						
Maximum Reverse Recovery Time (Note 2)	TRR	35						nS
Typical Junction Capacitance (Note3)	CJ	30			25			pF
Typical Thermal Resistance Junction to Ambient	RθJA	40						°C/W
Operating Junction Temperature Range	TJ	-55 to +150						°C
Storage Temperature Range	TSTG	-55 to +150						°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured with IF=0.5A,IR=1A,IRR=0.25A .

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

4. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

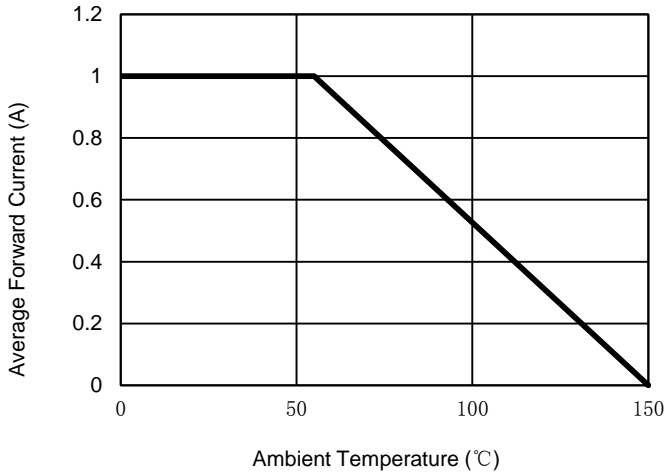


Fig. 2 - Maximum Non-Repetitive Surge Current

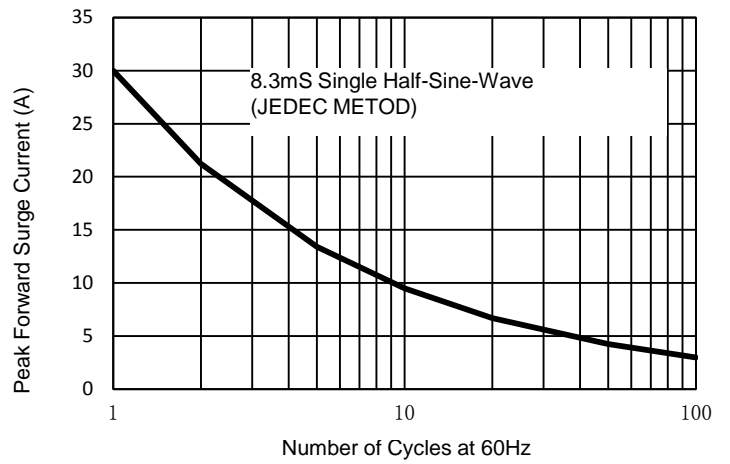


Fig. 3 - Typical Junction Capacitance

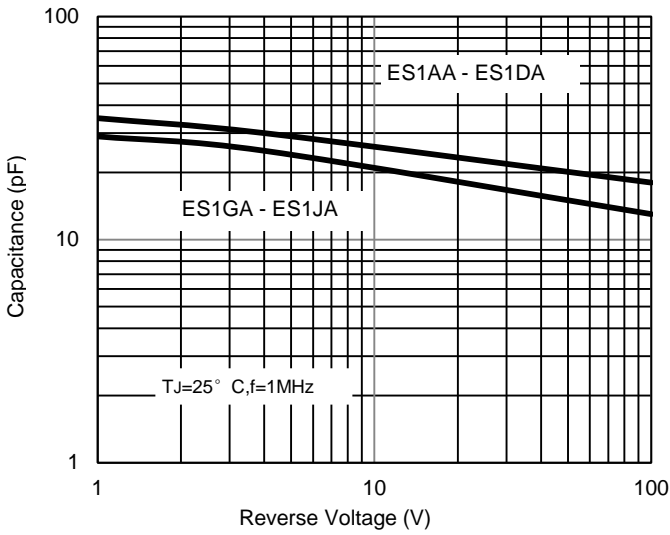


Fig. 4 - Typical Forward Characteristics

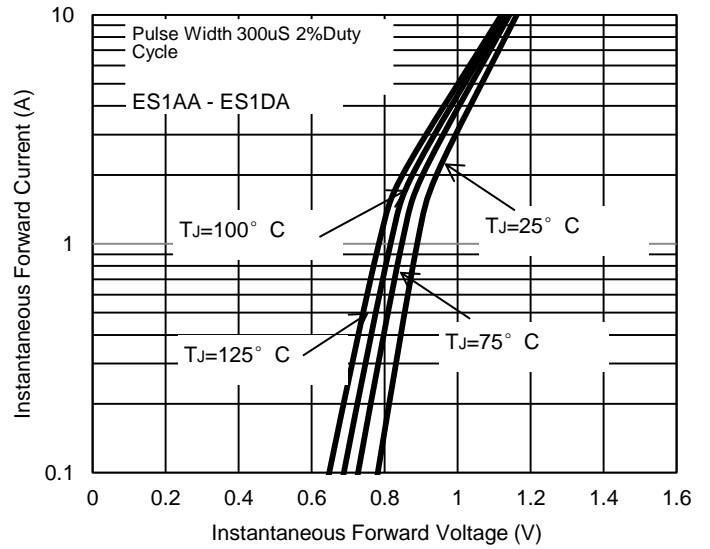


Fig. 5 - Typical Forward Characteristics

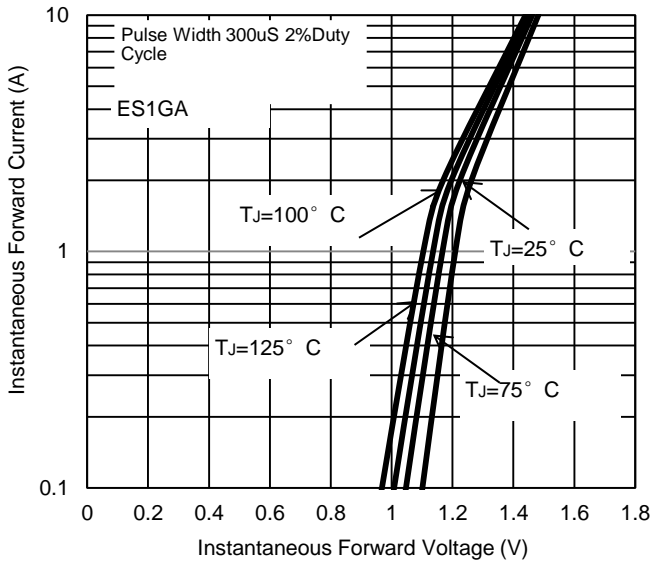
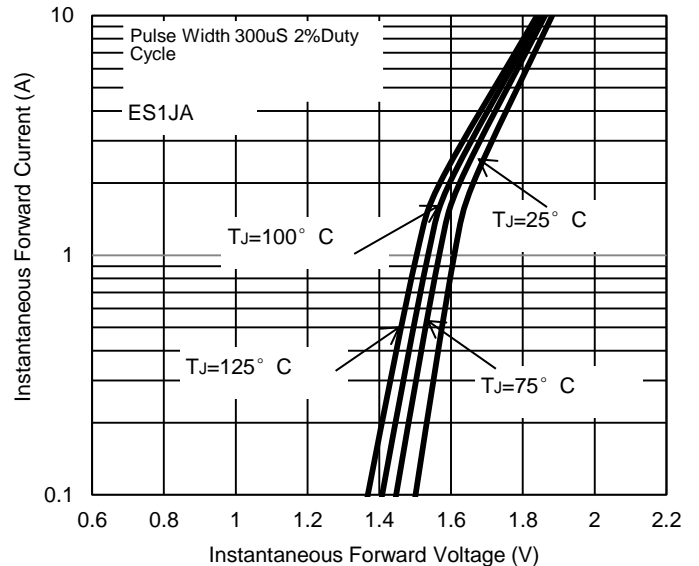


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



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