



Surface Mount Super Fast Glass Passivated Rectifiers

Reverse Voltage - 50 to 600 Volts
Forward Current - 3.0 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

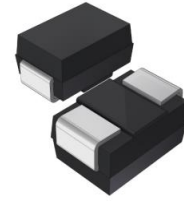
- Case: JEDEC SMA Molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

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

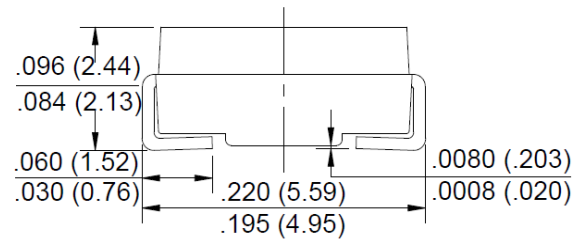
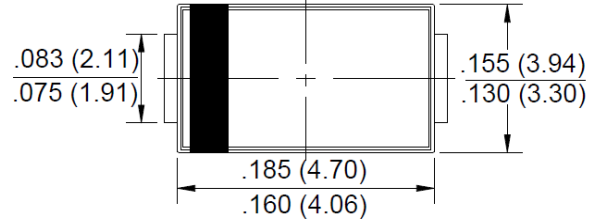
Applications

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

SMB



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	ES3AB	ES3BB	ES3DB	ES3GB	ES3JB	Unit	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	V	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	V	
Maximum Average Forward Rectified Current @T _A =55°C	I _(AV)	3.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	100						A
Peak Forward Voltage at 3.0A DC (Note1)	V _F	0.95		1.3		1.70	V	
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5.0 100						μA
Maximum Reverse Recovery Time (Note 2)	T _{RR}	35						nS
Typical Junction Capacitance (Note3)	C _J	70			45			pF
Typical Thermal Resistance Junction to Lead	R _{θJL}	20						°C/W
Operating Junction Temperature Range	T _J	-55 to +150						°C
Storage Temperature Range	T _{STG}	-55 to +150						°C

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

2. Measured with I_F=0.5A, I_R=1A, I_{RR}=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

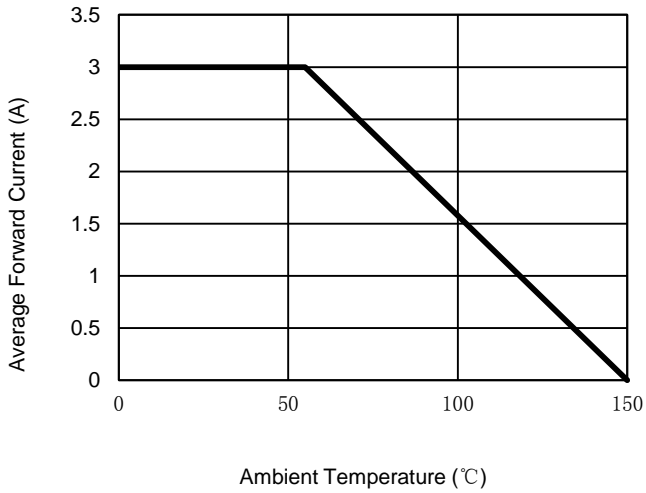


Fig. 2 - Maximum Non-Repetitive Surge Current

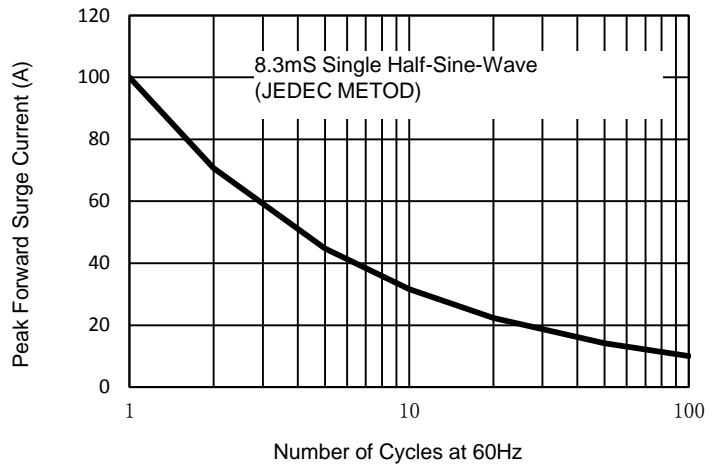


Fig. 3 - Typical Junction Capacitance

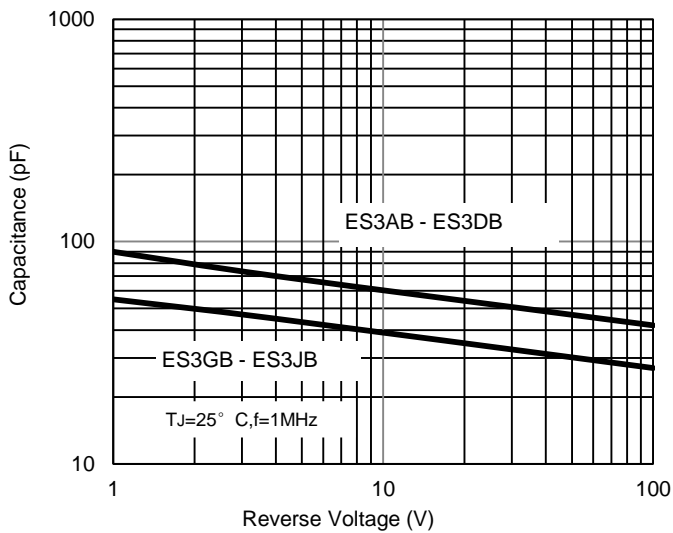


Fig. 4 - Typical Forward Characteristics

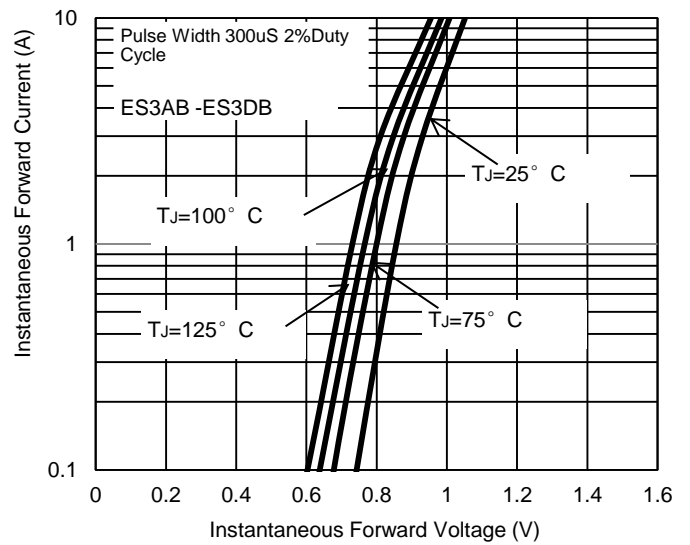


Fig. 5 - Typical Forward Characteristics

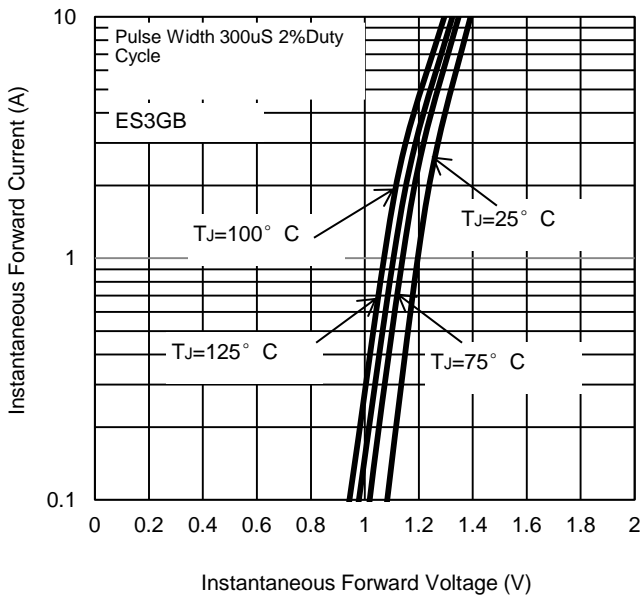
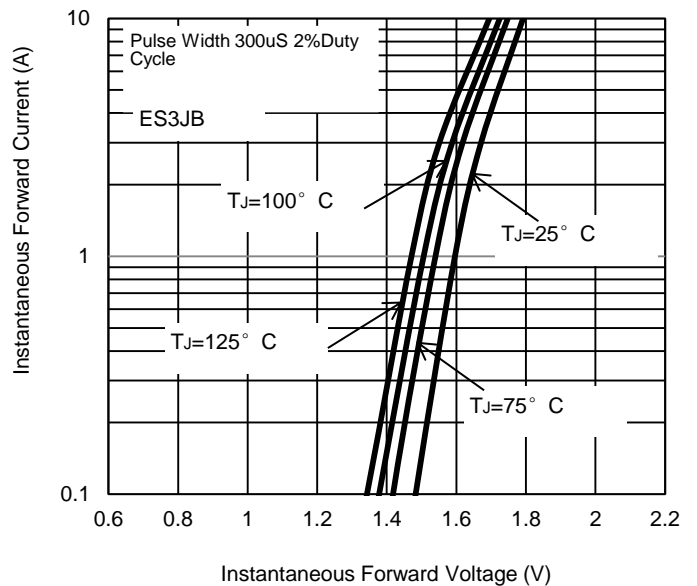


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.



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