

Surface Mount High Efficiency (Ultra Fast) Glass Passivated Rectifiers

Reverse Voltage - 50 to 1000 Volts
Forward Current - 3.0 Ampere

Features

- Low cost
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

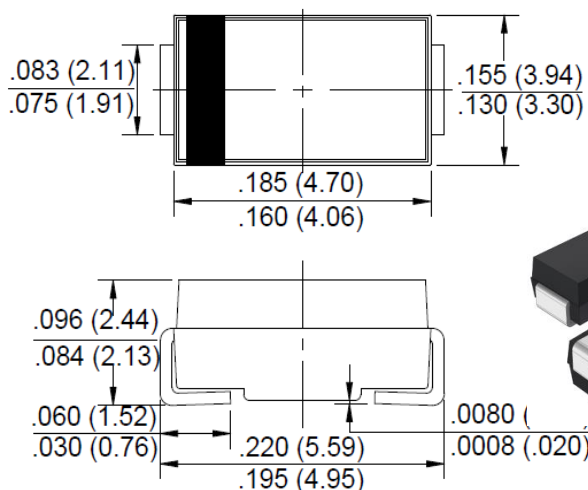
Mechanical Data

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

Applications

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

SMB



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	HS3AB	HS3BB	HS3DB	HS3GB	HS3JB	HS3KB	HS3MB	Unit
		UF3AB	UF3BB	UF3DB	UF3GB	UF3JB	UF3KB	UF3MB	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	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 3.0 A DC	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current at Rated @T _J =25 °C	I _R	5.0							μA
DC Blocking Voltage @T _J =100 °C		100							
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50				75			nS
Typical Junction Capacitance (Note2)	C _J	50				30			pF
Typical Thermal Resistance Junction to Lead	R _{θJL}	15							°C/W
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Notes: 1.Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $IRR=0.25\text{A}$.

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

3.The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

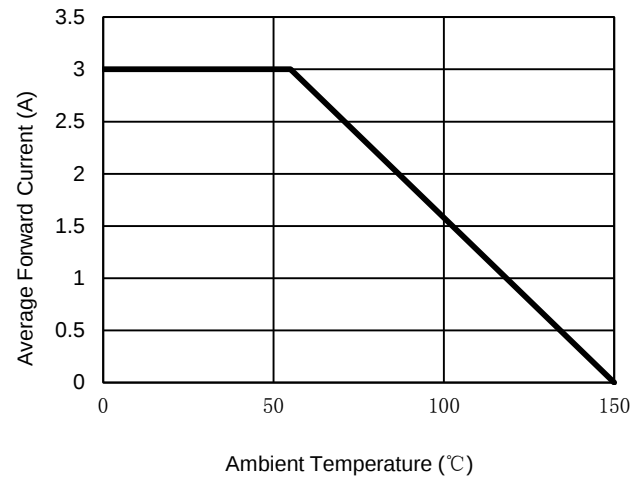


Fig. 2 - Maximum Non-Repetitive Surge Current

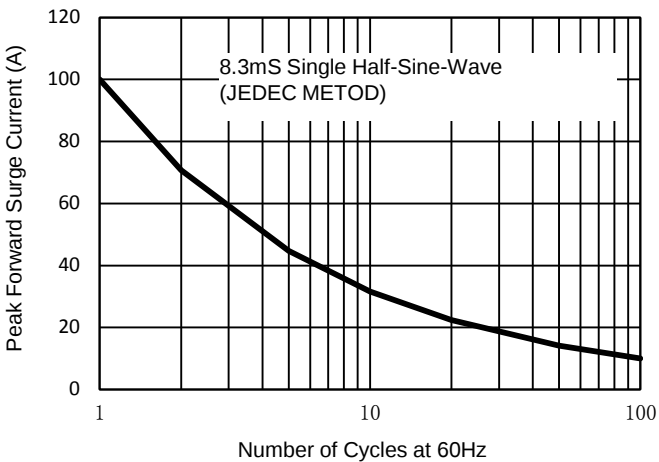


Fig. 3 - Typical Junction Capacitance

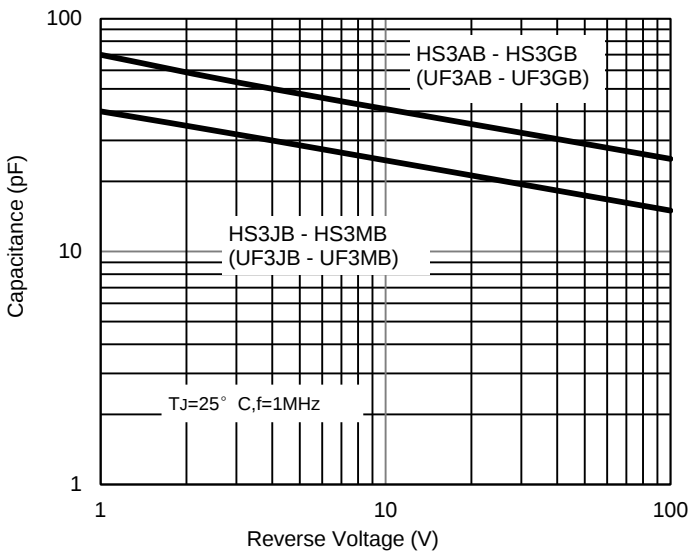


Fig. 4 - Typical Forward Characteristics

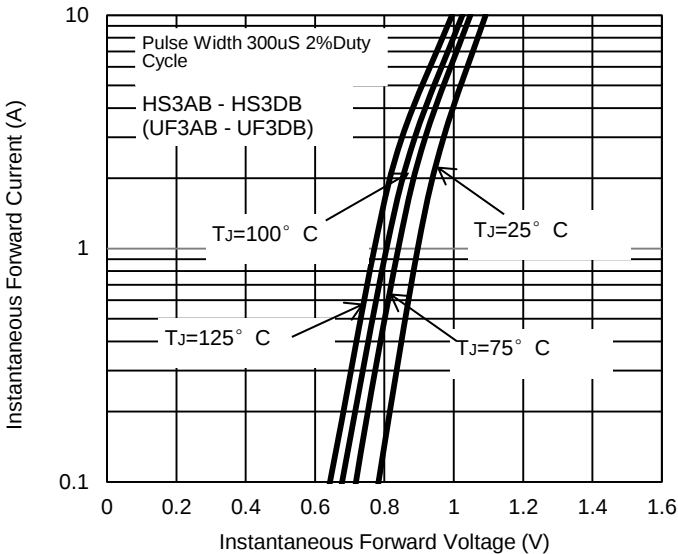


Fig. 5 - Typical Forward Characteristics

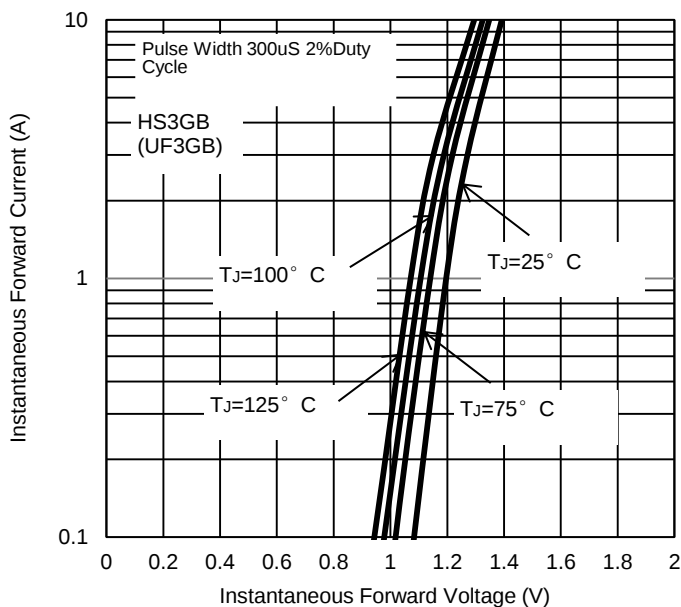
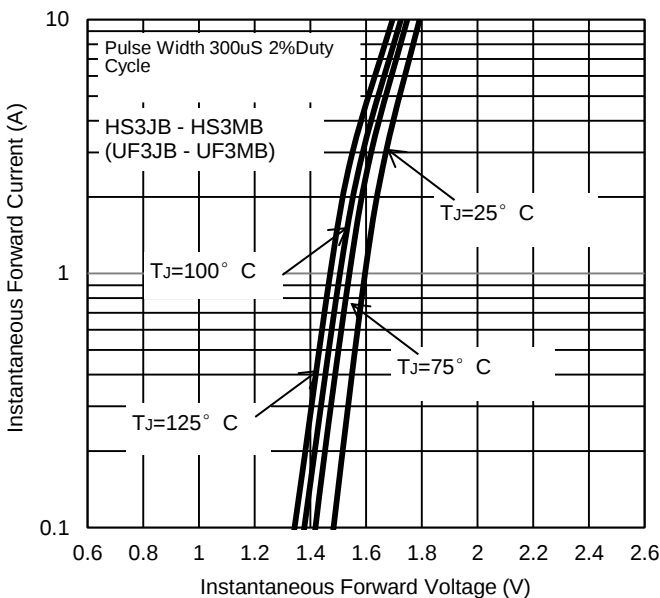


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

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