

Schottky Barrier Rectifiers

Reverse Voltage 20 to 100V Forward Current 5.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss, high efficiency
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- * Guardring for over voltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

Case: JEDEC SMBF

molded plastic over glass die

Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.066 g

Handling precaution: None

Electrical Characteristic

1. Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

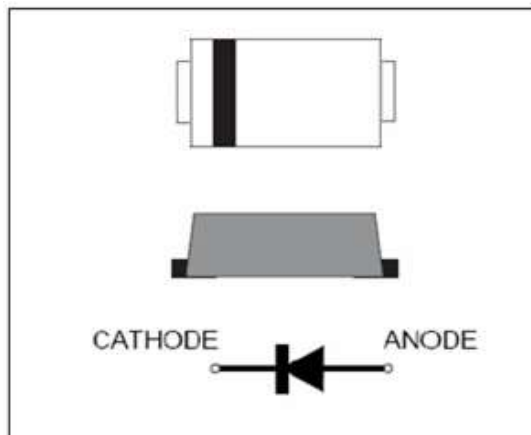
Parameter Symbol	symbol	SS52BF	SS53BF	SS54BF	SS545BF	SS55BF	SS56BF	SS58BF	SS510BF	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	45	50	60	80	100	V
Maximum RSM voltage	V_{RSM}	14	21	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	45	50	60	80	100	V
Maximum average forward rectified current lead length at TC = 75°C	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100								A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	135								°C/W
	$R_{\theta JC}$	25								
Operating junction and storage temperature range	T_J, T_{STG}	-40 to +150								°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SS52BF	SS53BF	SS54BF	SS545BF	SS55BF	SS56BF	SS58BF	SS510BF	Unit	
Maximum instantaneous forward voltage at 5.0A	V_F	0.50			0.70		0.85			V	
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_J = 100^\circ\text{C}$	I_R	0.5					10.0				mA
Typical junction capacitance at 4.0V, 1MHz	C_J	110								PF	

NOTES:

1. 8.0mm² (.013mm thick) land areas



we declare that the material of product is halogen free (green epoxy compound).

2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

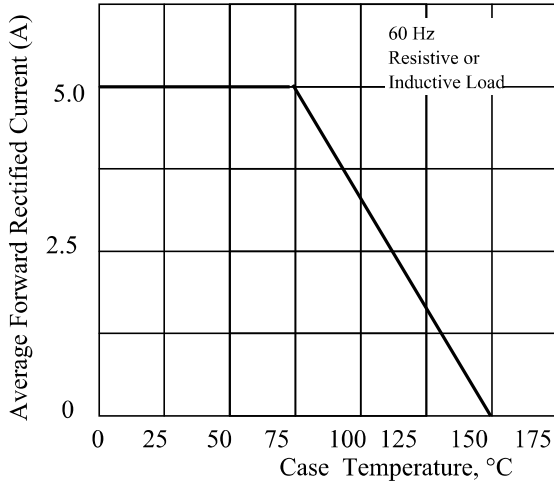


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

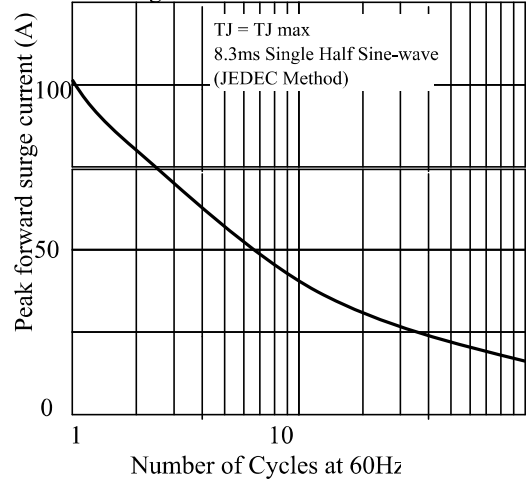


Fig. 3. - Typical Instantaneous Forward Characteristics

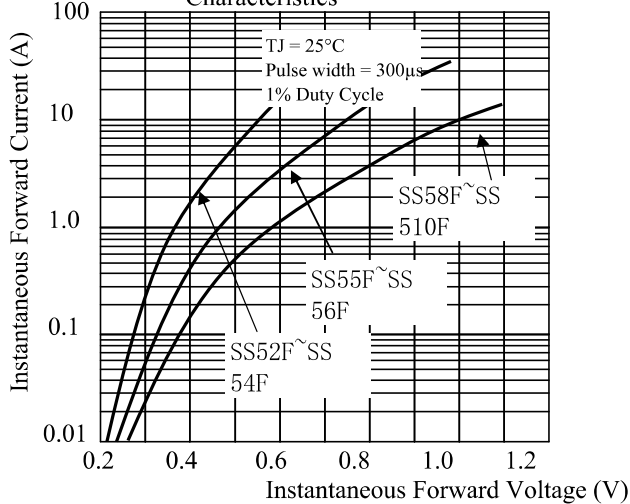


Fig. 4. - Typical Reverse Characteristics

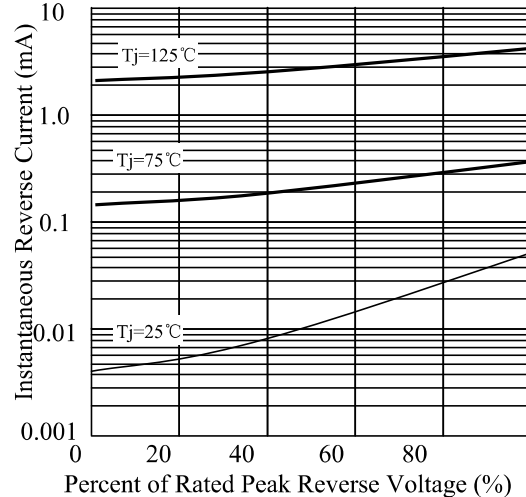


Fig 5. - typical transient thermal impedance

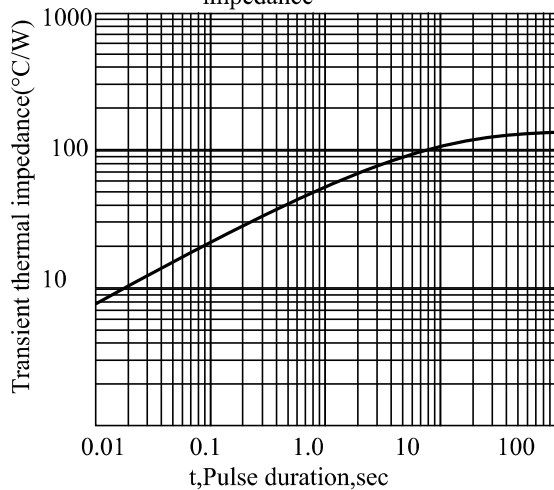
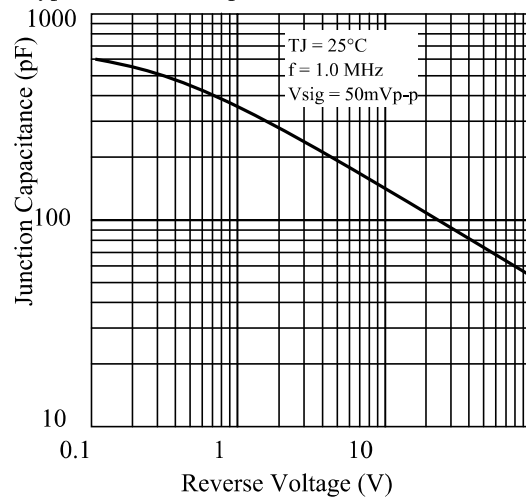


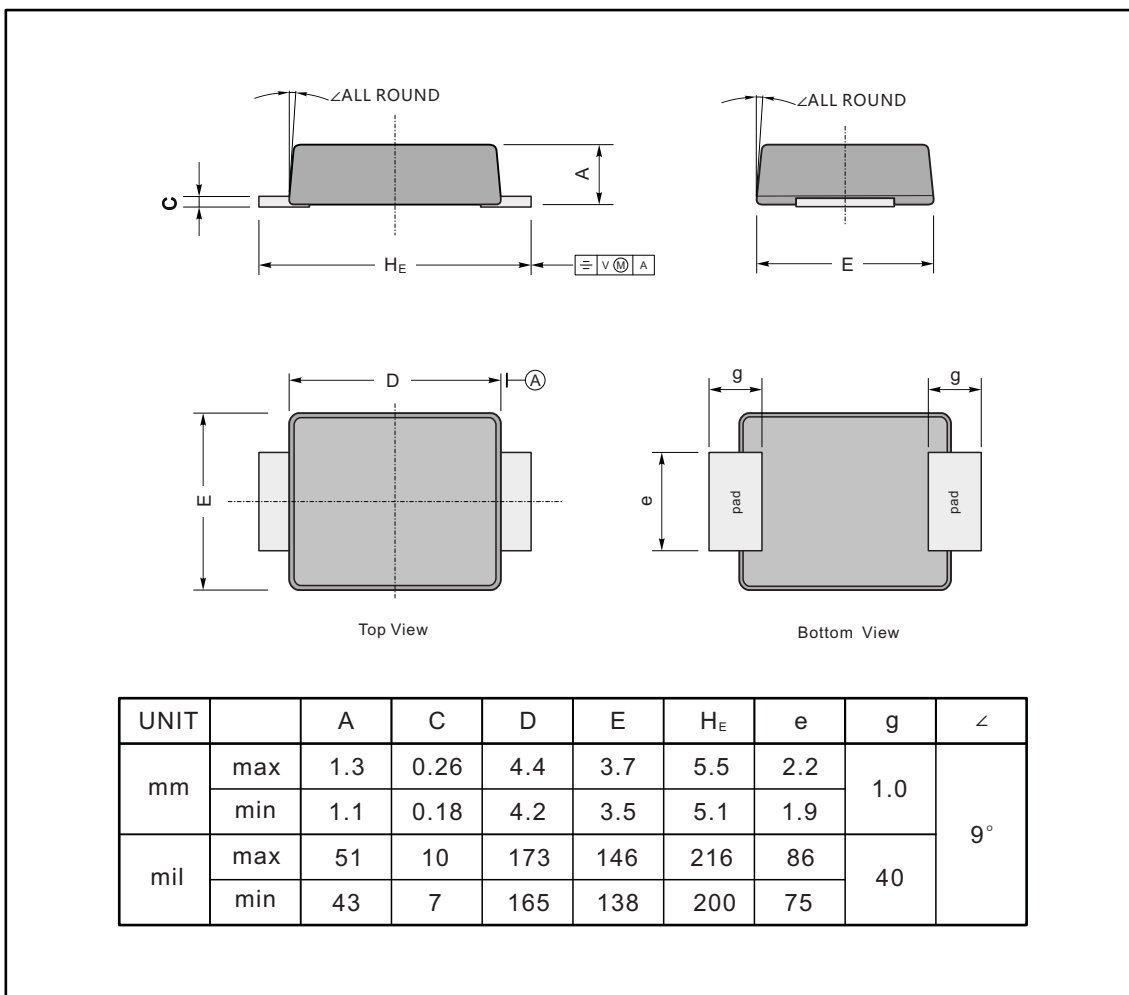
Fig 6. - Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMBF



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