



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**SS52BF  
THRU  
SS520BF**

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 20 to 200 Volts**

**CURRENT - 5.0 Amperes**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Glass passivated junction
- \* Low leakage current
- \* Low power loss
- \* High efficiency

**MECHANICAL DATA**

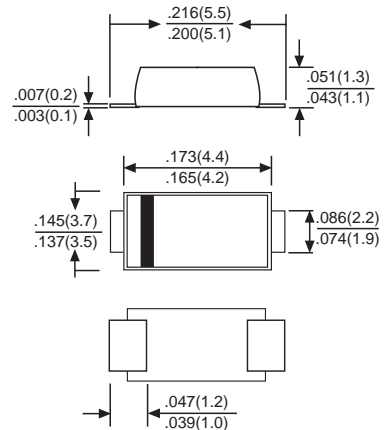
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.06 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**SMBFL**



Dimensions in inches and (millimeters)

	SYMBOL	SS52BF	SS54BF	SS56BF	SS58BF	SS510BF	SS512BF	SS515BF	SS520BF	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	40	60	80	100	120	150	200	Volts
Maximum RMS Voltage	VRMS	14	28	42	56	70	84	105	140	Volts
Maximum DC Blocking Voltage	VDC	20	40	60	80	100	120	150	200	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature at TA = 75 °C	IO	5.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150								Amps
Maximum Instantaneous Forward Voltage at 5.0A DC	VF	0.45	0.55	0.70		0.85				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ TA = 25 °C	1.0								mAmps
	@ TA = 100 °C	50								
Typical Thermal Resistance (Note 1)	RθJA	40								°C/W
Typical Junction Capacitance (Note 2)	CJ	800			500					pF
Operating Temperature Range	TJ	-55 to +125								°C
Storage Temperature Range	TSTG	-55 to +150								°C

- NOTES : 1. Thermal Resistance (Junction to Ambient)  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. P.C.B. mounted with 0.5x0.5"(12.7x12.7mm<sup>2</sup>) copper pad area.

# RATING AND CHARACTERISTIC CURVES ( SS52BF THRU SS520BF )

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

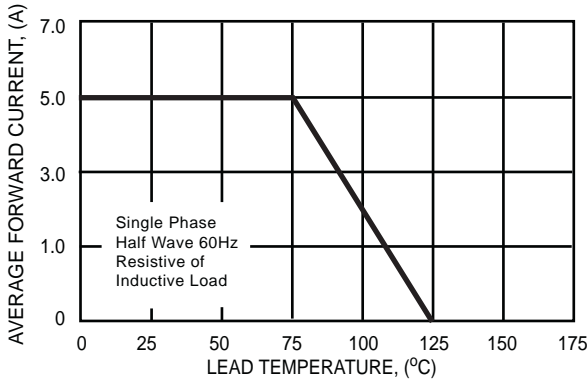


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

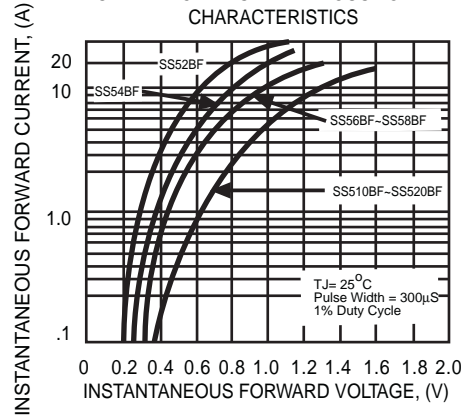


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

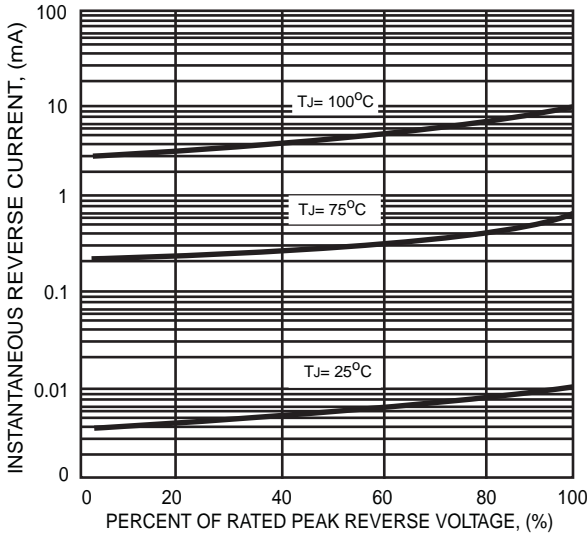


FIG.4 - TYPICAL TRANSIENT THERMAL IMPEDANCE

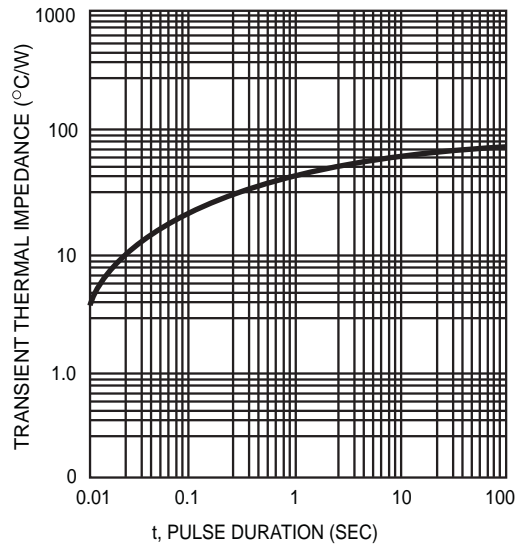


FIG.5 - TYPICAL JUNCTION CAPACITANCE

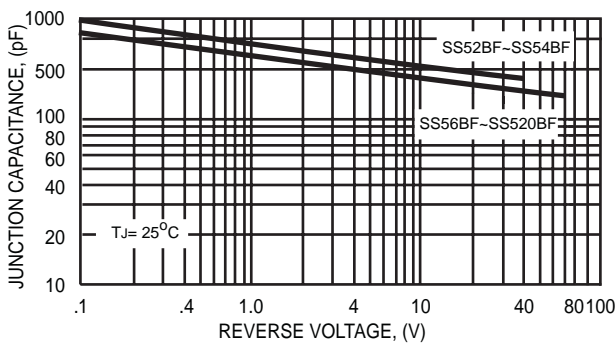
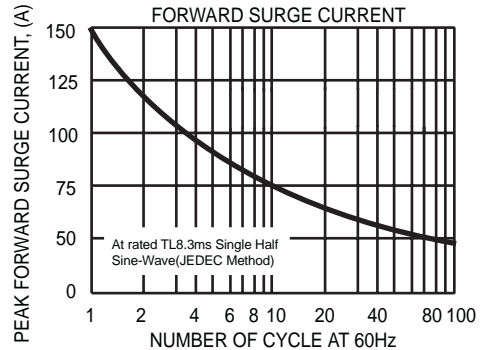


FIG.6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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