



PINGWEI ENTERPRISE

S52BF THRU S520BF

5.0AMPS. SCHOTTKY BARRIER RECTIFIERS

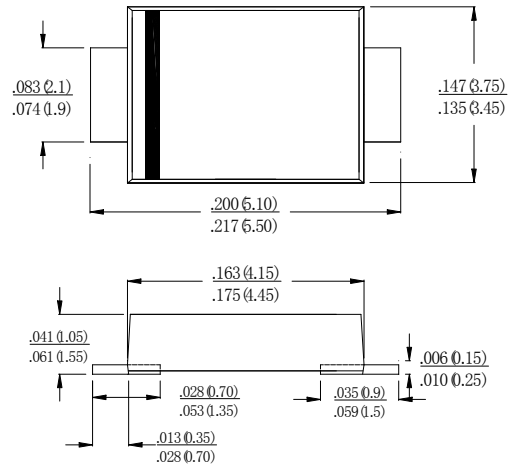
FEATURE

- . For surface mounted application
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge current capability
- . High temperature soldering guaranteed:
260°C/10 seconds at terminals.

MECHANICAL DATA

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Packaging: 12mm tape per EIA STD RS-481

SMBF



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Type Number	SYMBOL	S52BF	S54BF	S56BF	S510BF	S515BF	S520BF	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	105	140	V
Maximum DC blocking Voltage	V_{DC}	20	40	60	100	150	200	V
Maximum Average Forward Rectified Current at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0						A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load (JEDEC method)	I_{FSM}	120.0						A
Maximum Forward Voltage at 5.0A DC	V_F	0.45	0.55	0.70	0.85	0.95		V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	0.5			0.1			mA
		40.0			10.0			
Typical Junction Capacitance (Note1)	C_J	500			112			pF
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	55						°C/W
	$R_{(JL)}$	18						
Storage Temperature	T_{STG}	-55 to +150						°C
Operation Junction Temperature	T_J	-55 to +125			-55 to +150			°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient and Lead, Mounted Measured on P.C. Board with 0.2×0.2" (5.0×5.0mm) Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES (S52BF THRU S520BF)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

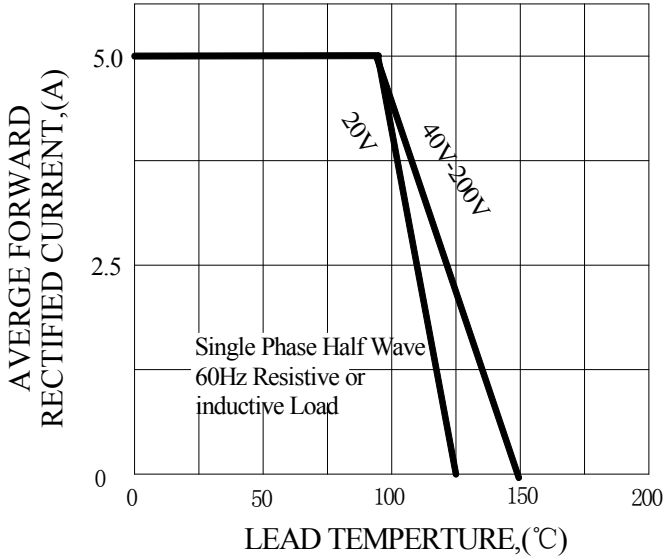


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

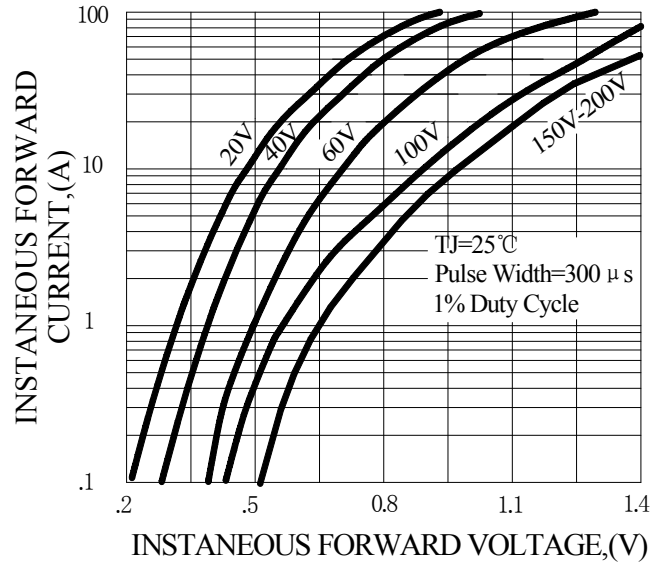


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

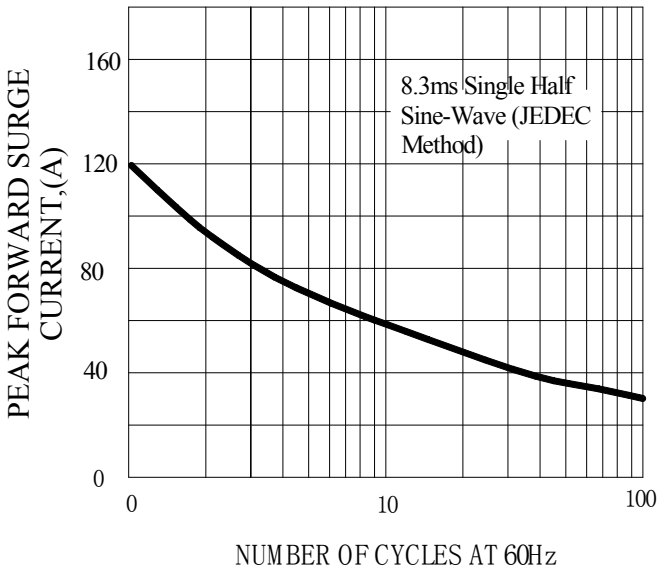


FIG.4-TYPICAL REVERSE CHARACTERISTICS

