

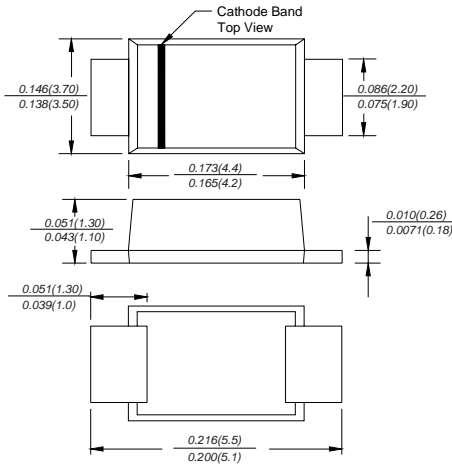


SK52BF THRU SK520BF

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

SMBF



FEATURES

- ◆ Metal silicon junction, majority carrier conduction
- ◆ For surface mounted applications
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

Case: JEDEC SMBF molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any
Weight: 57mg/0.002oz

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 current derate by 20%.

MDD Catalog Number	SYMBOLS	SK52BF	SK54BF	SK56BF	SK58BF	SK510BF	SK515BF	SK520BF	UNITS	
Marking code		K52B	K54B	K56B	K58B	K510B	K515B	K520B		
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	VOLTS	
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	VOLTS	
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	VOLTS	
Maximum average forward rectified current at T_L (see fig.1)	$I_{(AV)}$	5.0							Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0							Amps	
Maximum instantaneous forward voltage at 5.0A	V_F	0.45	0.55	0.70	0.85		0.95		Volts	
Maximum DC reverse current at rated DC blocking voltage	I_R					1.0				mA
Typical junction capacitance (NOTE 1)	C_J	800			500				pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$					40.0				°C/W
Operating junction temperature range	T_J					-50 to +125				°C
Storage temperature range	T_{STG}					-50 to +150				°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



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RATINGS AND CHARACTERISTIC CURVES SK52BF THRU SK520BF

Fig.1 Forward Current Derating Curve

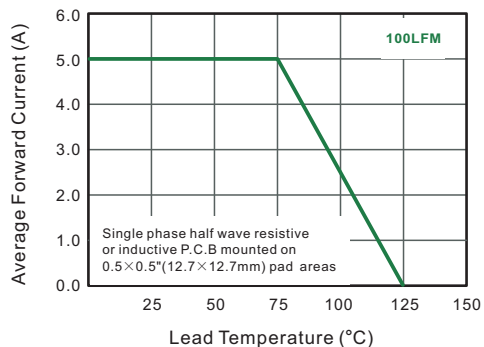


Fig.2 Typical Reverse Characteristics

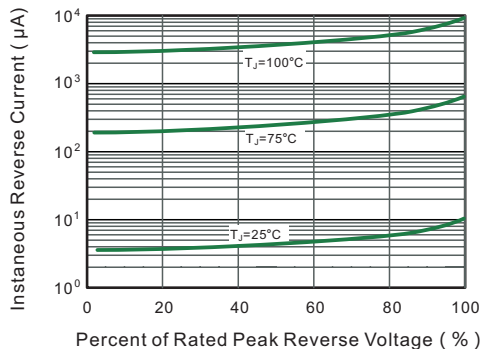


Fig.3 Typical Forward Characteristic

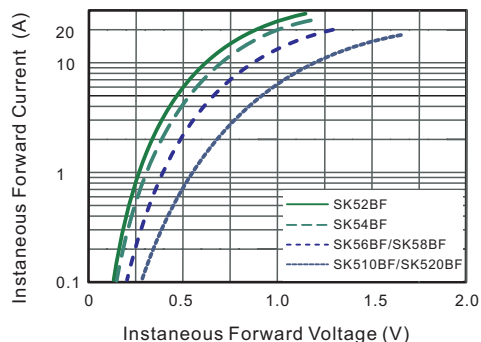


Fig.4 Typical Junction Capacitance

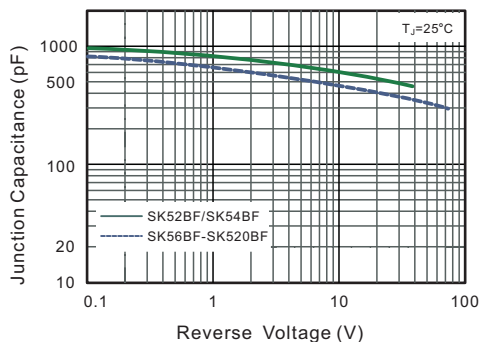


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

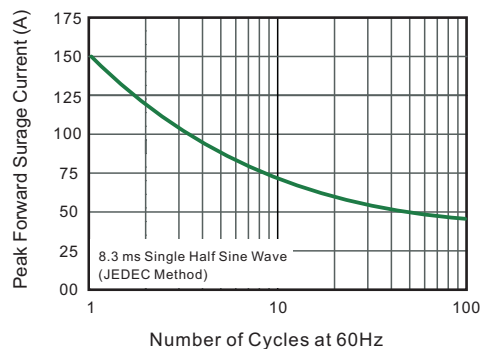
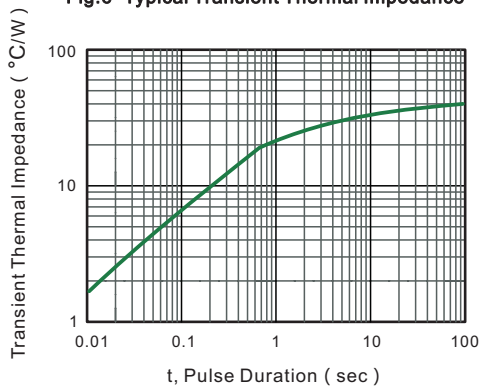


Fig.6- Typical Transient Thermal Impedance



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)

