SL54BF

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 Volts   Forward Current - *5.0 Ampere*

SMBF

Cathode Band
Top View

0.146(3.70)
0.138(3.50)

0.086(2.20)
0.075(1.90)

0.173(4.4)
0.165(4.2)

0.051(1.30)
0.043(1.10)

0.010(0.26)
0.0071(0.18)

0.051(1.30)
0.039(1.0)

0.216(5.5)
0.200(5.1)

Dimensions in inches and (millimeters)
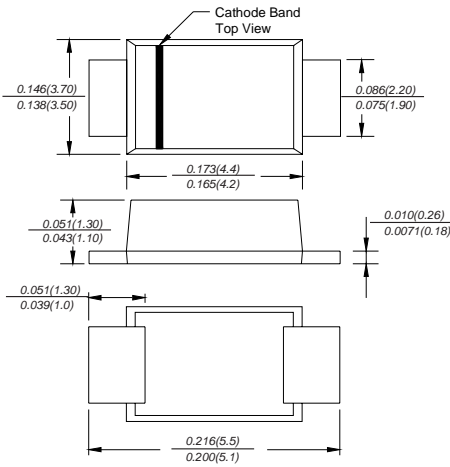
FEATURES

- 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 applicatlons

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℃ 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	SL54BF	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	VOLTS
Maximum RMS voltage	V_{RMS}	28	VOLTS
Maximum DC blocking voltage	V_{DC}	40	VOLTS
Maximum average forward rectified current	$I_{(AV)}$	5.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125	Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.45	Volts
Maximum DC reverse current TA=25℃ at rated DC blocking voltage TA=100℃	I_R	1.0 50.0	mA
Typical junction capacitance (NOTE 1)	C_J	380	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	25	°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 0.5x0.5"(12.7x12.7mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SL54BF
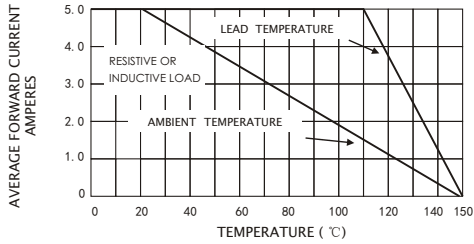
FIG.1-FORWARD CURRENT DERATING CURVE

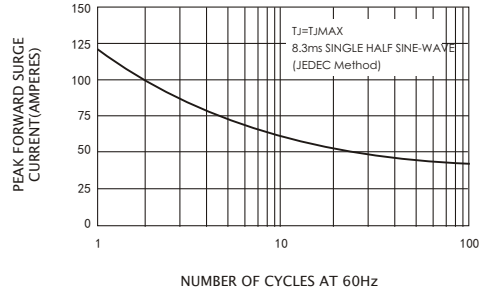FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

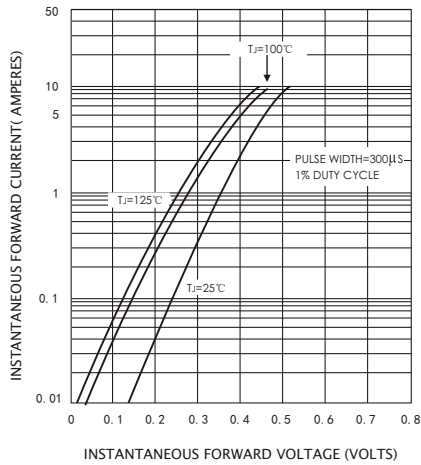FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS
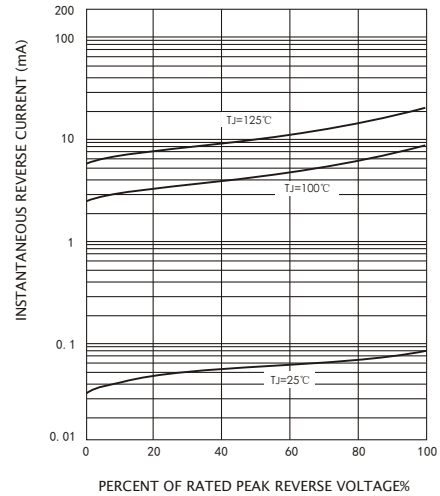
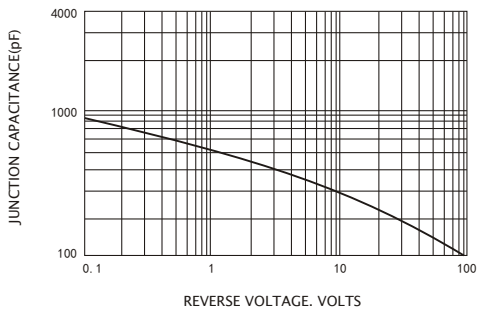FIG.4-TYPICAL REVERSE CHARACTERISTICS

FIG.5-TYPICAL JUNCTION CAPACITANCE

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