SCHOTTKY BARRIER RECTIFIERS *RB051L-40*

FEATURES

Lead-free

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guarding for overvoltage protection
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed:260℃/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AC,molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

		RB051L-40	UNITS
Device marking code		B3L	
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum DC blocking voltage	V_{DC}	20	V
Maximum average forward rectified current at T_L(SEE FIG.1)	$I_{F(AV)}$	3.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	70.0	A
Maximum instantaneous forward voltage at I_{FM}=3.0A	V_F	0.45	V
Maximum DC reverse current V_R=20V at rated DC blocking voltage V_R=15V	I_R	1.0 150	m A μ A
Typical thermal resistance (NOTE1)	$R_{\theta JA}$	90	℃/W
Operating temperature range	T_J	- 40 --- +125	℃
Storage temperature range	T_{STG}	- 40 --- +125	℃

NOTE: 1Thermal resistance junction to ambient.

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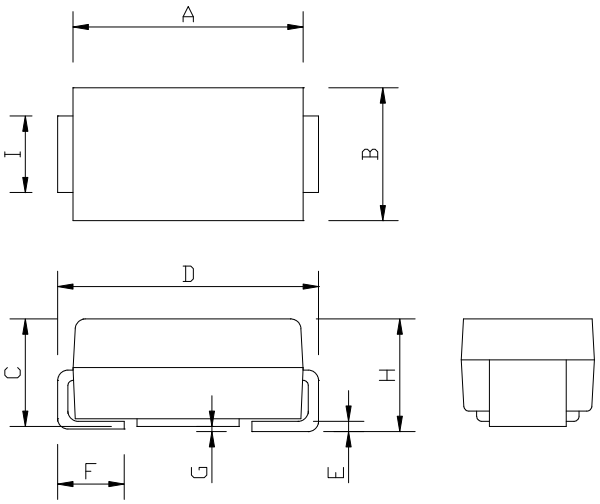
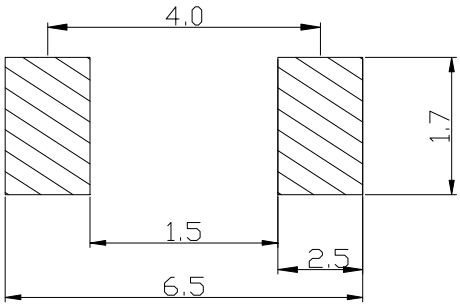
PACKAGE OUTLINE DIMENSIONS



DO-214AC(SMA)		
Dim	Min	Max
A	4.25	4.65
B	2.40	2.80
C	1.85	2.15
D	4.85	5.35
E	0.10	0.30
F	0.90	1.50
G	0.20MAX	
H	1.90	2.30
I	1.35	1.65
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
RB051L-40	DO-214AC(SMA)	5000/Tape&Reel

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RB051L-40

FIG.1 – FORWARD DERATING CURVE

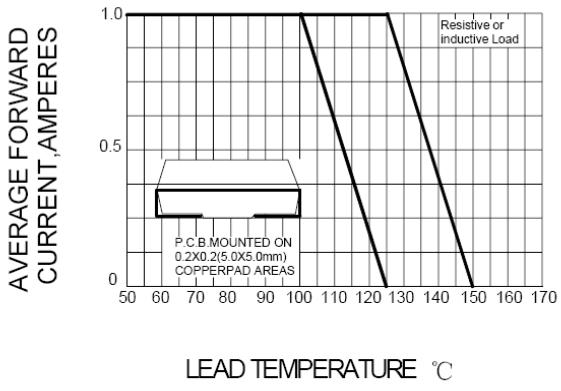

FIG.2– PEAK FORWARD SURGE CURRENT

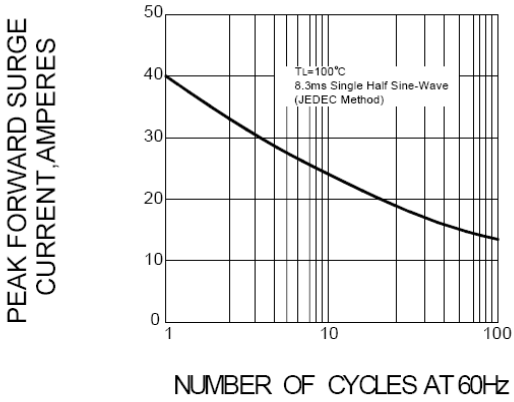

FIG.3 – TYPICAL FORWARD CHARACTERISTICS

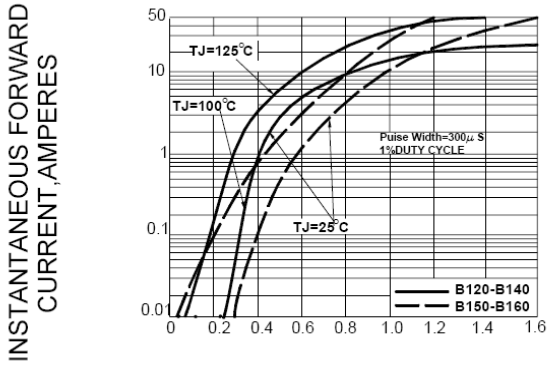

FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

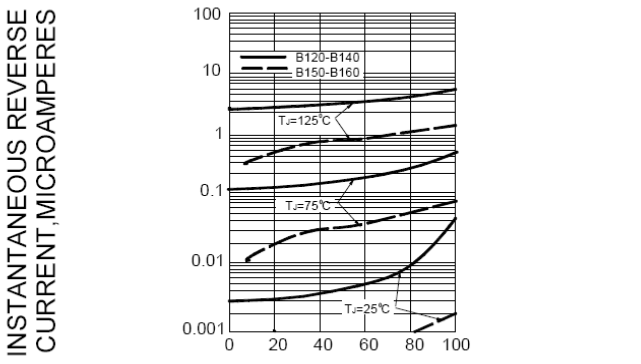

FIG.5–TYPICAL JUNCTION CAPACITANCE