

## Surface Mount Rectifiers

## RS3ABT--RS3MBT

### FEATURES



Lead-free

- Low profile package
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Plastic package has underwrite rslaborator flammability classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals

### MECHANICAL DATA

- Case: SMBT, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS3ABT	RS3BBT	RS3DBT	RS3GBT	RS3JBT	RS3KBT	RS3MBT	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current $T_L=90^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	100							A

### Thermal Characteristics

Characteristic	Symbol	RS3ABT	RS3BBT	RS3DBT	RS3GBT	RS3JBT	RS3KBT	RS3MBT	UNITS
Operating temperature range	$T_J$	- 55 ----- + 150							°C
storage temperature range	$T_{STG}$	- 55 ----- + 150							°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS3ABT	RS3BBT	RS3DBT	RS3GBT	RS3JBT	RS3KBT	RS3MBT	UNITS
Maximum instantaneous forward voltage at 3.0 A	$V_F$	1.3							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	10 200							$\mu\text{A}$
Typical reverse recovery time (Note1)	$t_{rr}$	150				250	500		ns

NOTE: 1.Reverse recovery time test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$



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**PACKAGE OUTLINE DIMENSIONS**

SMBT		
Dim	Min	Max
A	3.80	4.20
B	3.30	3.70
D	5.00	5.40
F	0.45	0.75
F1	2.55	2.95
H	1.10	1.30
I	1.85	2.15
I1	2.40	2.80
All Dimensions in mm		

**PACKAGE INFORMATION**

Device	Package	Shipping
RS3ABT--RS3MBT	SMBT	4000/Tape&Reel



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FIG.1 -- FORWARD DERATING CURVE

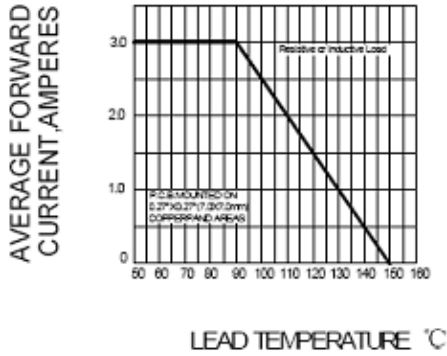


FIG.2 PEAK FORWARD SURGE CURRENT

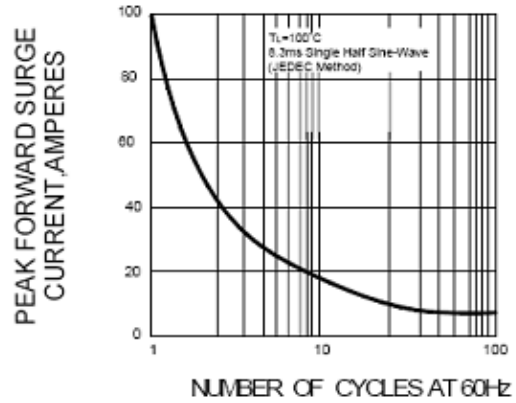


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

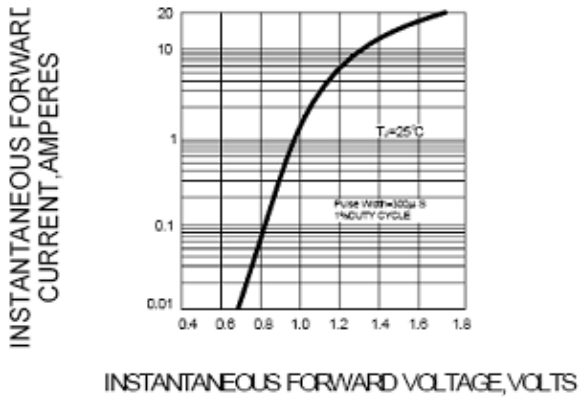


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

