

**SURFACE MOUNT SCHOTTKY  
BARRIER RECTIFIERS**
**SS52BT--SS510BT**
**FEATURES**

- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- Guarding for overvoltage protection
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- High temperature soldering guaranteed:250°C/10 seconds at terminals



Lead-free

**MECHANICAL DATA**

- Case: SMBT molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

Characteristic	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	UNITS
		BT	BT	BT	BT	BT	BT	BT	BT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	$V_{RWS}$	14	21	28	35	42	56	63	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V
Maximum average for word rectified current at TL(SEEFIG.1)	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half-sine-wave	$I_{FSM}$	150								A

**Thermal Characteristics**

Characteristic	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	UNITS
		BT	BT	BT	BT	BT	BT	BT	BT	
Operating temperature range	$T_J$	-55----+125					-55----+150			°C
Storage temperature range	$T_{STG}$	-55----+150								°C

**Electrical Characteristics** (@ $T_A = 25^\circ\text{C}$  unless otherwise specified)

Characteristic	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS59	SS510	UNITS
		BT	BT	BT	BT	BT	BT	BT	BT	
Maximum instantaneous forward voltage at 5.0	$V_F$	0.55			0.75		0.85			V
Maximum DC reverse current $T_A=25^\circ\text{C}$ atrated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	0.5								m A
		20					10			



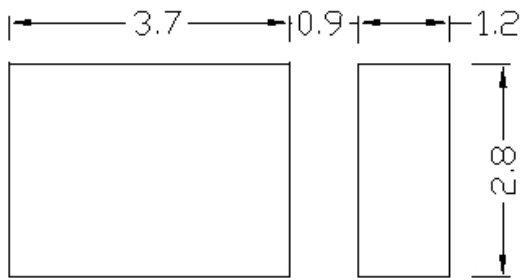
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**PACKAGE OUTLINE DIMENSIONS**

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		

**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

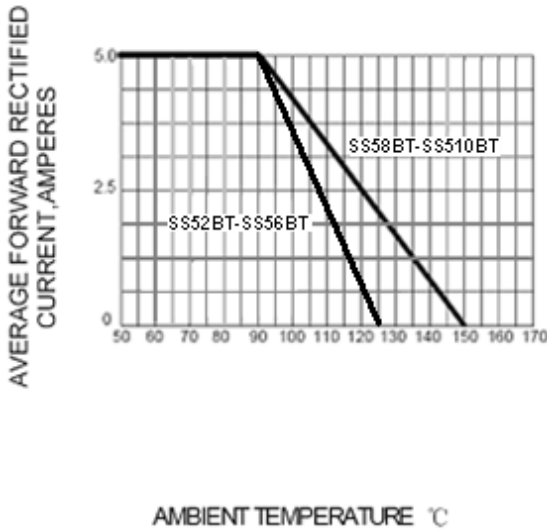
Device	Package	Shipping
SS52BT--SS510BT	SMBT	4000/Tape&Reel



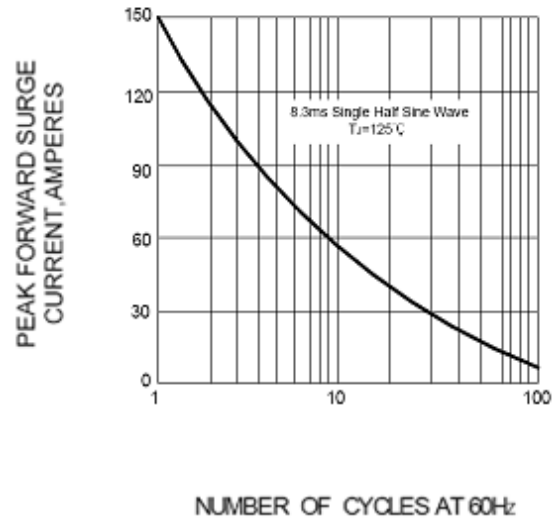
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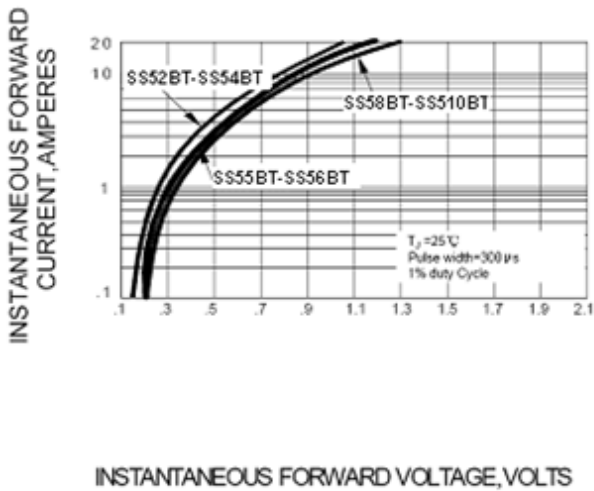
**FIG.1 – FORWARD DERATING CURVE**



**FIG.2– PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**

