

VOLTAGE RANGE

20 to 100 Volts

CURRENT

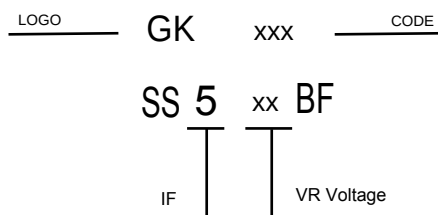
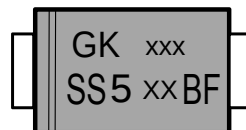
5.0 Ampere

FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202F method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SS52BF	SS53BF	SS54BF	SS55BF	SS56BF	SS58BF	SS59BF	SS510BF	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	63	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current	5.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	120								A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.70		0.85		V		
Maximum DC Reverse Current Ta=25°C	0.1					0.02		mA	
at Rated DC Blocking Voltage Ta=100°C	5					2		mA	
Typical Junction Capacitance (Note1)	380								pF
Typical Thermal Resistance R JL (Note 2)	10								°C/W
Operating Temperature Range Tj	-65 — +150								°C
Storage Temperature Range Tstg	-65 — +150								°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

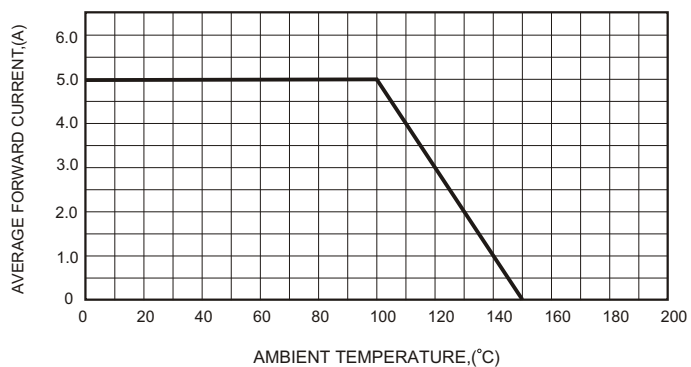


FIG.2-TYPICAL FORWARD CHARACTERISTICS

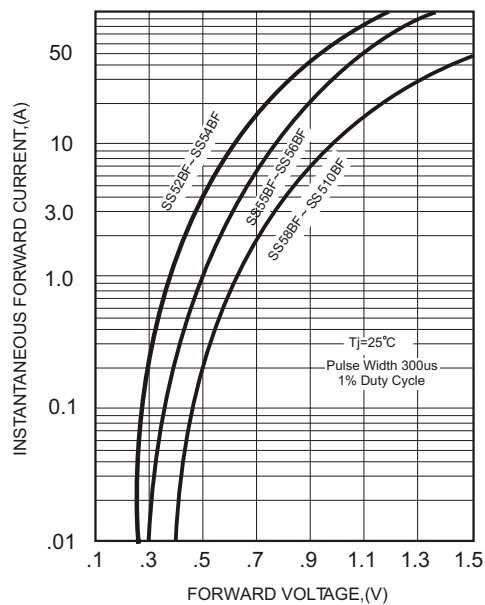


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

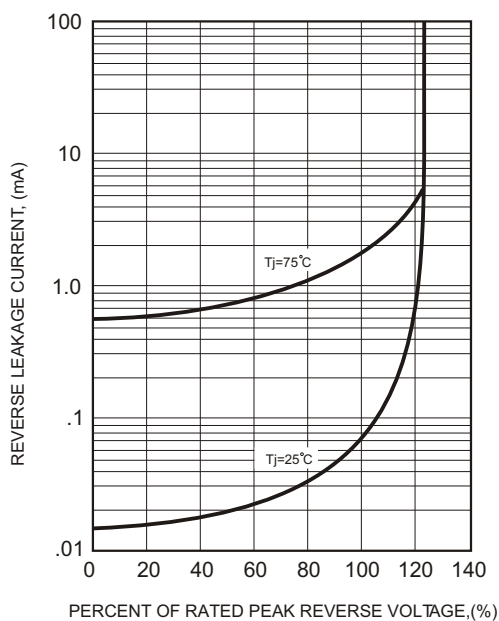


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

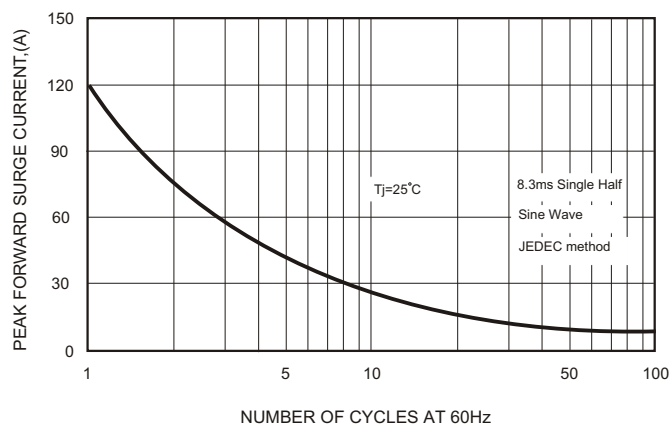
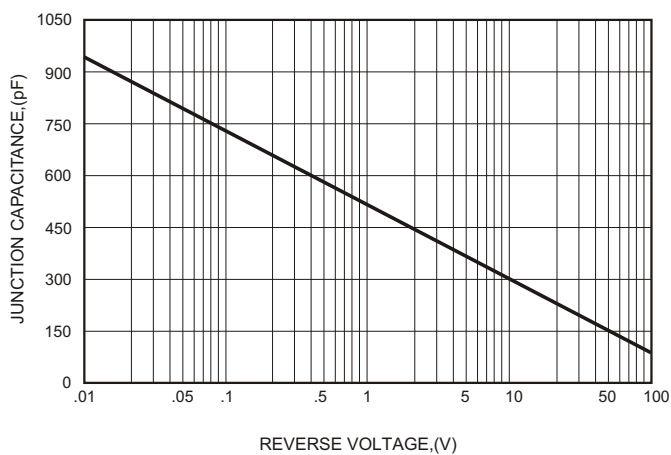


FIG.5-TYPICAL JUNCTION CAPACITANCE



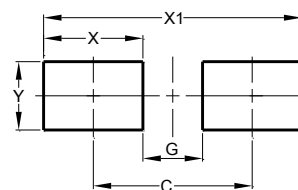
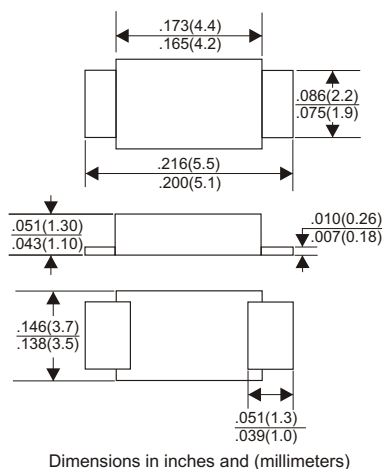
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



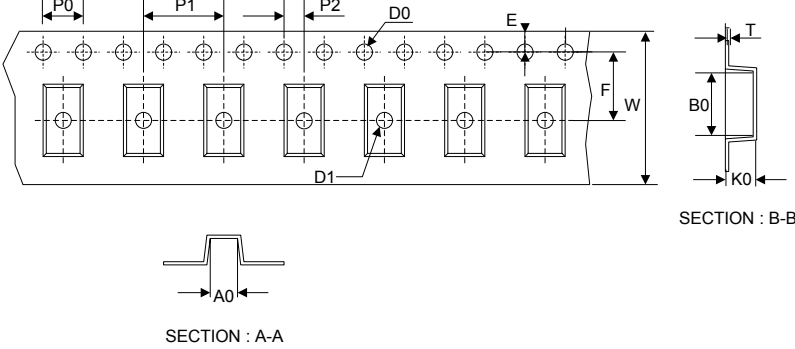
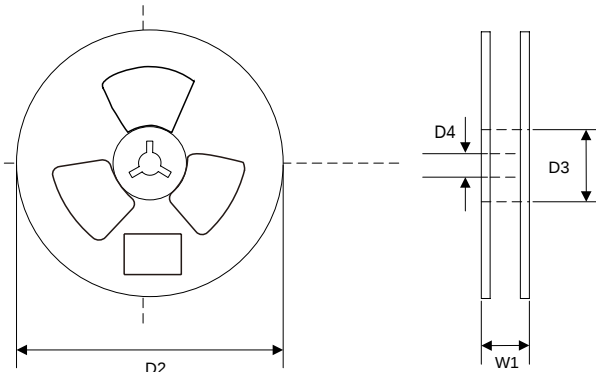
Package Dimensions & Suggested Pad Layout

SMBF



Dimensions	Value (in mm)
C	4.30
G	1.80
X	2.50
X1	6.80
Y	2.30

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	8.00±0.20
		P2	2.00±0.20
		D0	1.55±0.15
		D1	1.55±0.15
		E	1.75±0.20
		F	5.50±0.05
		W	12.00±0.10
		A0	2.93±0.25
		B0	5.00±0.25
		K0	1.45±0.20
		T	0.25±0.10
13" Reel		Symbol	Dimension (mm)
		D2	330.0±5.0
		D3	73.0Min.
		D4	14.0±2.5
		W1	16.0±2.5
		Quantity: 5000PCS	