

## VOLTAGE RANGE

20 to 100 Volts

## CURRENT

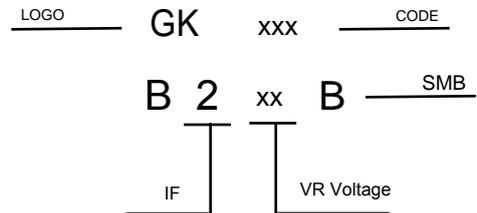
2.0 Ampere

## 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
- \* Weight: 0.093 gram



## 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	B220B	B230B	B240B	B250B	B260B	B280B	B290B	B2100B	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	2.0								A	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	50								A	
Maximum Instantaneous Forward Voltage at 2.0A	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)	170								pF	
Typical Thermal Resistance R JA (Note 2)	60								°C/W	
Operating Temperature Range Tj	-65 — +150								°C	
Storage Temperature Range Tstg	-65 — +150								°C	

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
2. P.C.B. mounted with 0.4x0.4" (10x10mm) copper pad areas

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

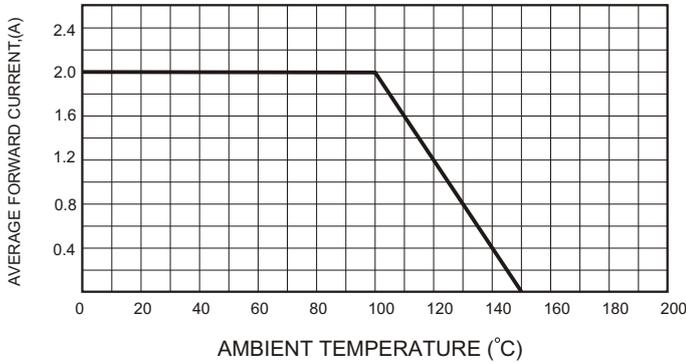


FIG.2-TYPICAL FORWARD CHARACTERISTICS

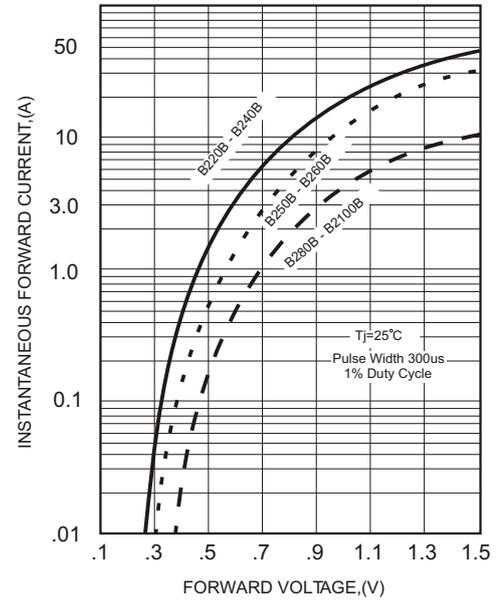


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

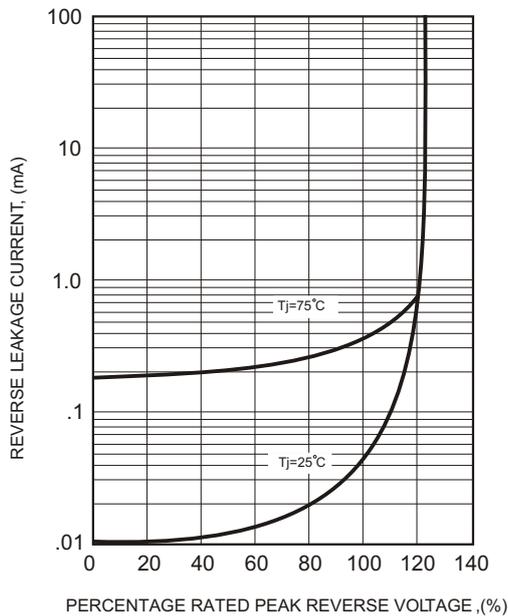


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

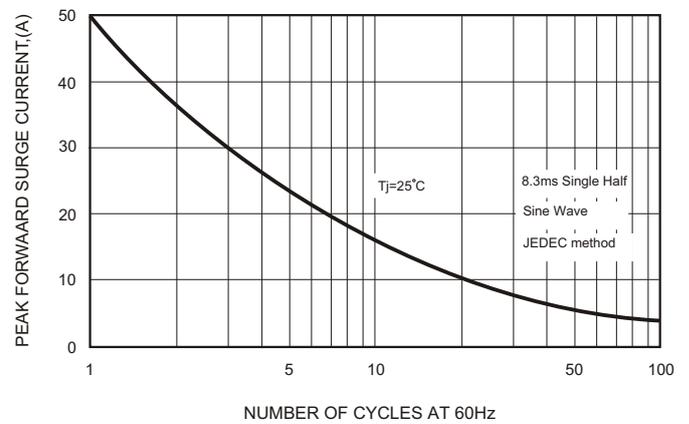
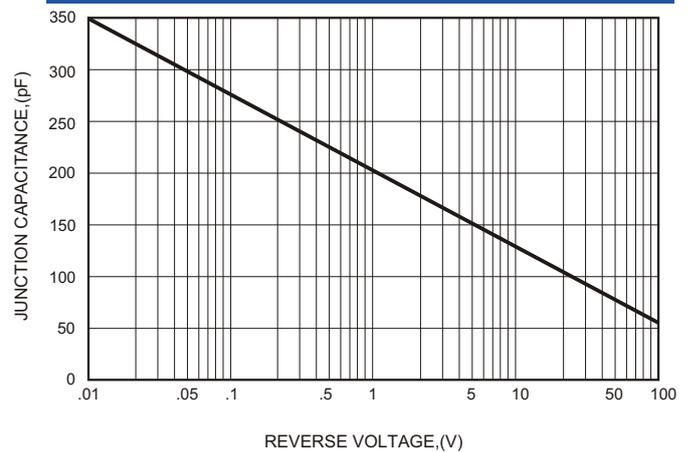


FIG.5-TYPICAL JUNCTION CAPACITANCE



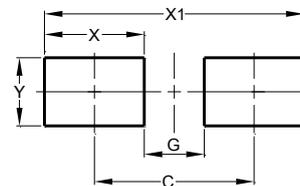
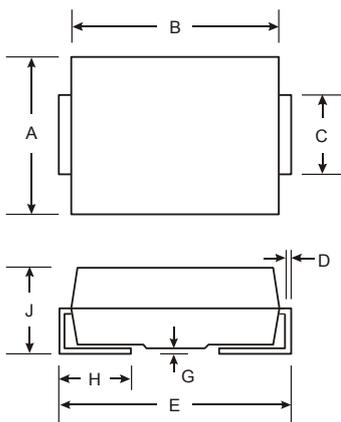
Soldering parameters

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

SMB



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.15	0.31
E	5.08	5.59
G		0.20
H	0.76	1.50
J	2.13	2.44
All Dimensions in mm		

Dimensions	Value (in mm)
C	4.70
G	2.20
X	2.50
X1	7.20
Y	2.80

Tape & reel specification

Tape		Symbol	Dimension (mm)
<p>SECTION : A-A</p> <p>SECTION : B-B</p>		P0	4.00±0.20
		P1	8.00±0.20
		P2	2.00±0.20
		D0	1.60±0.20
		D1	1.60±0.20
		E	1.75±0.20
		F	5.50±0.15
		W	12.00±0.20
		A0	4.00±0.20
		B0	5.45±0.20
		K0	2.50±0.25
		T	0.20±0.10
		13" Reel	
		D3	73.0Min.
		D4	14.0±2.5
		W1	16.0±2.5
		Quantity: 3000PCS	