

VOLTAGE RANGE

20 to 60 Volts

CURRENT

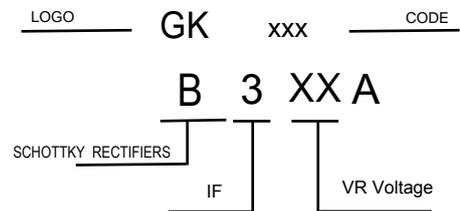
3.0 Ampere

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
- * Metallurgically bonded construction
- * 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%.

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic	Symbol	B320A	B330A	B340A	B350A	B360A	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}						V	
Working Peak Reverse Voltage	V _{RWM}	20	30	40	50	60		
DC Blocking Voltage	V _R							
Average Rectified Output Current @ T _T = +100°C	I _O	3.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	80						A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Maximum Total Power Dissipation - Steady State, T _A = +25°C (Note 7)	P _D	850	mW
Typical Thermal Resistance, Junction to Ambient (Note 7)	R _{θJA}	140	°C/W
Typical Thermal Resistance, Junction to Terminal (Note 8)	R _{θJT}	25	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 8)	R _{θJA}	100	°C/W
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	B320A, B330A, B340A	V_F	—	—	0.53	V	$I_F = 3.0\text{A}, T_A = +25^\circ\text{C}$
	B350A, B360A		—	—	0.70		
Leakage Current (Note 9)		I_R	—	—	0.5	mA	@ Rated $V_R, T_A = +25^\circ\text{C}$
			—	—	20		@ Rated $V_R, T_A = +100^\circ\text{C}$
Total Capacitance		C_T	—	200	—	pF	$V_R = 4\text{V}, f = 1\text{MHz}$

- Notes:
7. Device mounted on FR-4 PCB, with minimum recommended pad layout.
 8. Device mounted on glass epoxy substrate with 2x3mm copper pad.
 9. Short duration pulse test used to minimize self-heating effect.



RATING AND CHARACTERISTIC CURVES

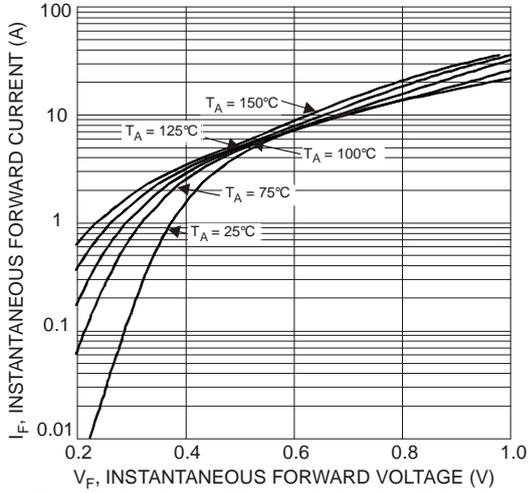


Fig. 1 Typical Forward Characteristics - B320A thru B340A

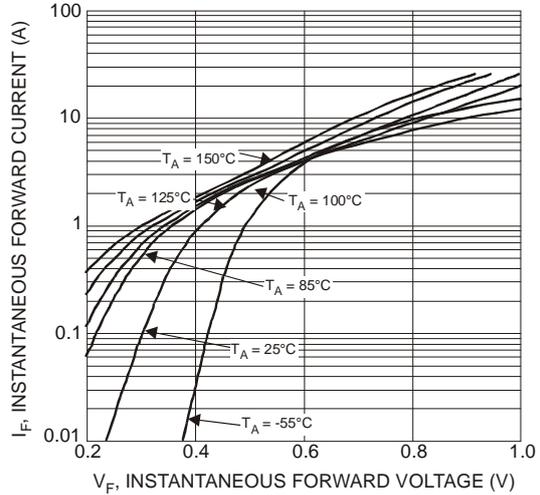


Fig. 2 Typ. Forward Characteristics - B350A thru B360A

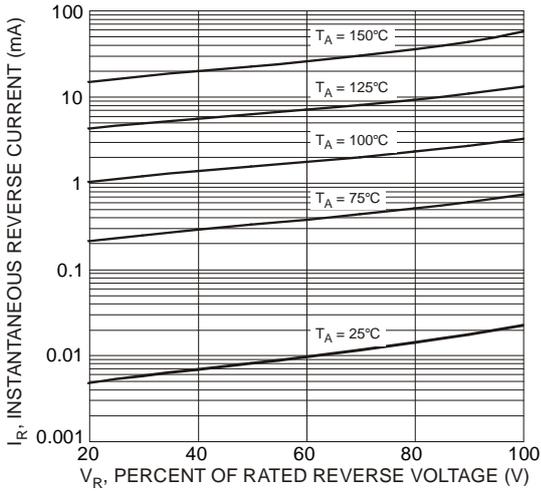


Fig. 3 Typical Reverse Characteristics, B320A thru B340A

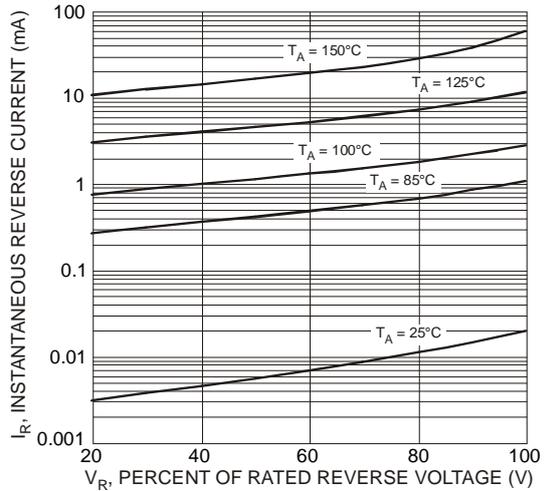


Fig. 4 Typical Reverse Characteristics, B350A thru B360A

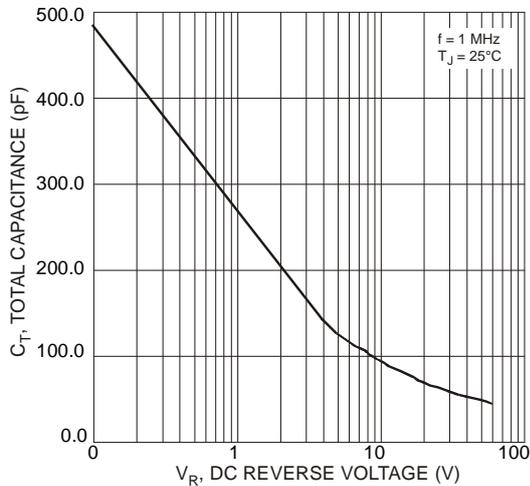


Fig. 5 Total Capacitance vs. Reverse Voltage

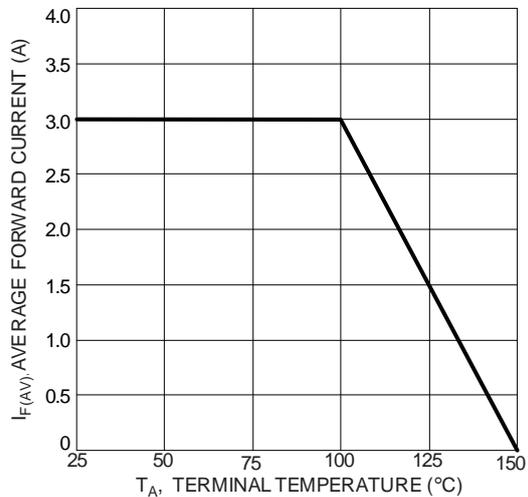
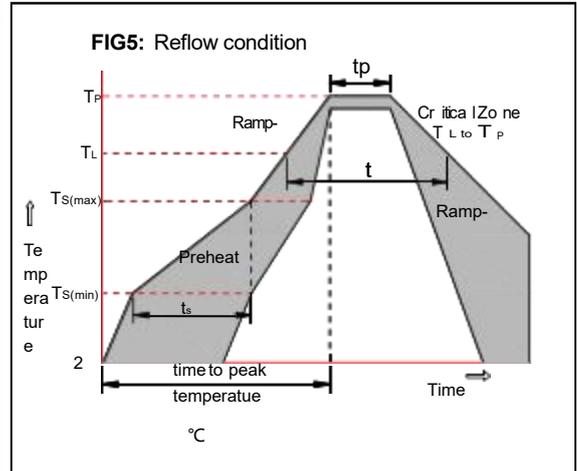


Fig. 6 Forward Current Derating Curve

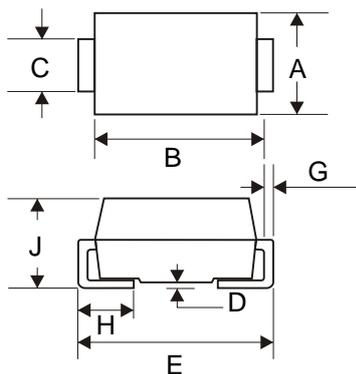
Soldering parameters

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

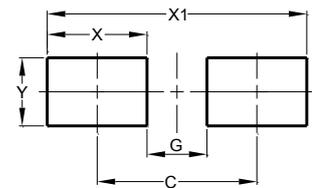


Package Dimensions & Suggested Pad Layout

SMA



SMA		
Dim	Min	Max
A	2.40	2.79
B	3.99	4.50
C	1.32	1.47
D	-	0.20
E	4.93	5.28
G	0.15	0.31
H	0.76	1.52
J	1.98	2.29
All Dimensions in mm		



Dimensions	Value (in mm)
C	4.20
G	1.90
X	2.30
X1	6.50
Y	2.00

Tape & reel specification

Tape		Symbol	Dimension (mm)
		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±0.25
		A0	2.75±0.20
		B0	5.25±0.20
		K0	2.45±0.25
T	0.20±0.10		
<p>7" Reel</p>		D2	176.0±5.0
		D3	55.0Min.
		D4	14.0±2.5
		W1	14.0±2.5
		Quantity: 2000PCS	
<p>13" Reel</p>		D8	330.0±5.0
		D9	73.0Min.
		D10	14.0±2.5
		W3	14.0±2.5
		Quantity: 5000PCS	