

FEATURES

Glass Passivated Chip Junction
Reverse Voltage - 50 to 1000 V
Average Rectified Output Current- 0.6 A
High Surge Current Capability
Designed for Surface Mount Application

MECHANICAL DATA

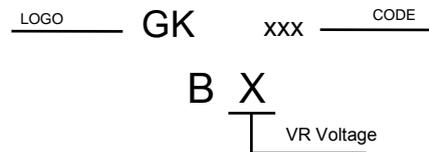
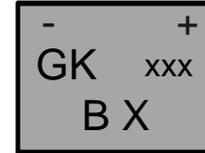
- Case: UMB
- Terminals: Solderable per MIL-STD-750, Method 2026

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

0.6 Amperes



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	UM05B-B1	UM1B-B2	UM2B-B3	UM4B-B4	UM6B-B5	UM8B-B6	UM10B-B7	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	0.6							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	2.5							A
Maximum Forward Voltage Drop per Bridge Element at 0.3A D.C.	1.0							V
Maximum DC Reverse Current Ta=25°C	3.0							μA
at Rated DC Blocking Voltage Ta=100°C	100							μA
Typical Thermal Resistance R _{JA} (Note 1)	110							°C/W
Operating Temperature Range, T _J	-55 — +150							°C
Storage Temperature Range, T _{STG}	-55 — +150							°C

NOTE 1: Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

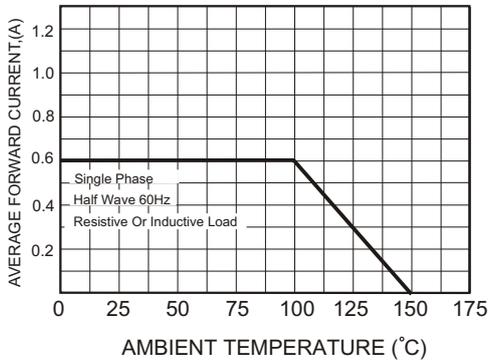


Fig.2 Typical Reverse Characteristics

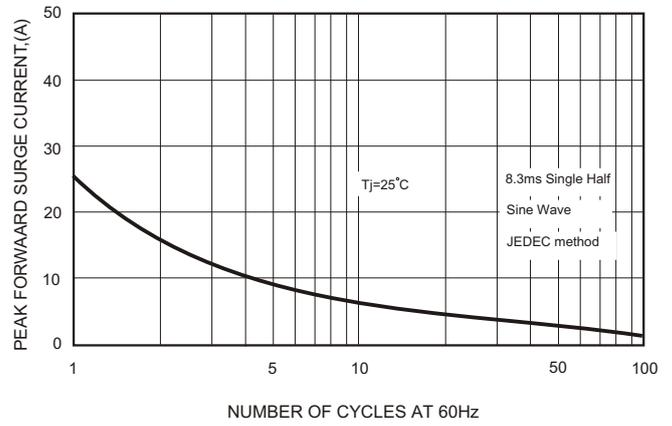


Fig.3 Typical Instaneous Forward Characteristics

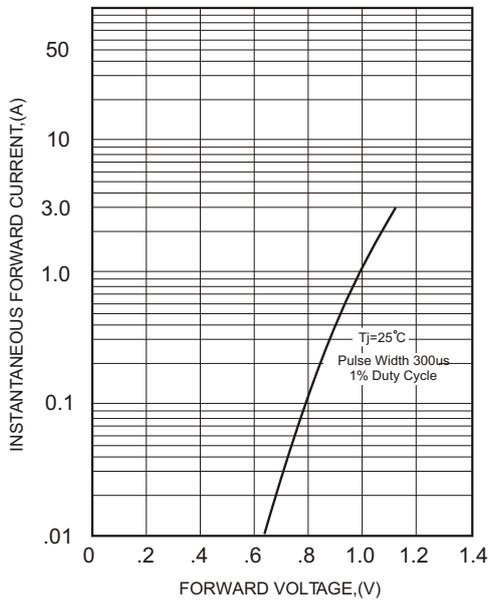
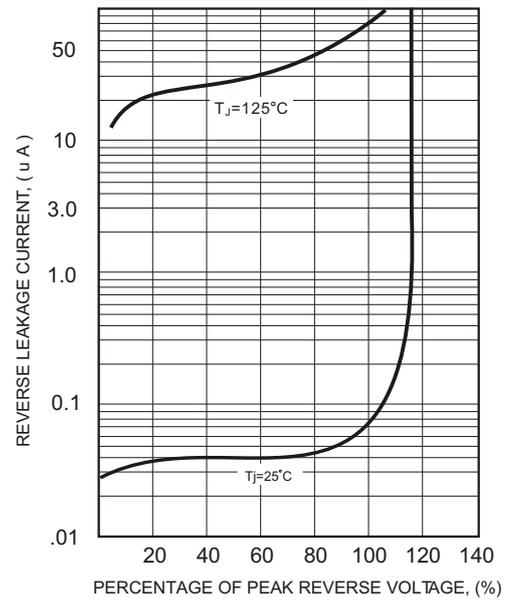
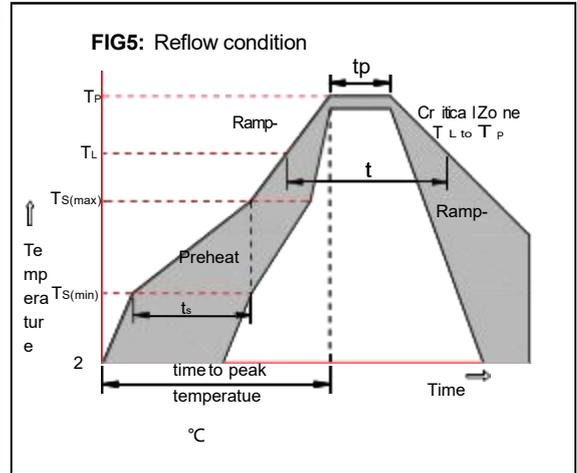


Fig.4 Typical Junction Capacitance



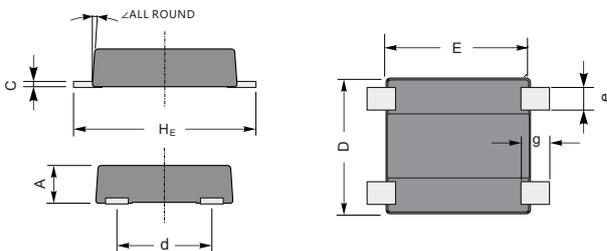
Soldering parameters

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

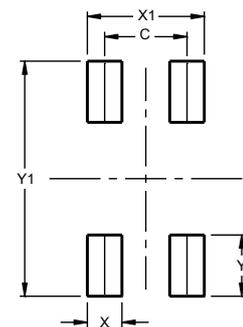


Package Dimensions & Suggested Pad Layout

UMB



UNIT		A	C	D	E	HE	g	d	e	∠
mm	max	1.35	0.20	4.0	4.0	5.1	0.82	2.7	0.70	7°
	min	1.0	0.12	3.4	3.6	4.6	0.51	2.3	0.51	
mil	max	53	7.9	158	157	201	32	106	28	
	min	39	4.7	134	142	181	20	91	20	



Dimensions	Value (in mm)
C	2.55
X	1.20
X1	3.75
Y	1.60
Y1	6.20

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±0.15
		F	5.60±0.20
		W	12.00±0.20
		A0	4.70±0.20
		B0	5.80±0.20
		K0	1.70±0.20
		T	0.23±0.10
		13" Reel	
		D3	73Min.
		D4	12.0±2.5
		W1	12.0±2.0
		Quantity: 5000PCS	