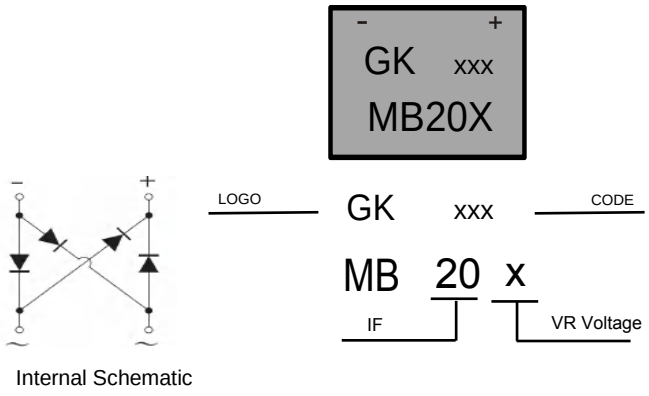
VOLTAGE RANGE
50 to 1000 Volts
CURRENT
2.0 Ampere

FEATURES
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 2.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA
* Case: UMSB
* Terminals: Solderable per MIL-STD-750, Method 2026



Internal Schematic

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbols	MSB20B	MSB20D	MSB20G	MSB20J	MSB20K	MSB20M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current	I_O	2.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60						A
Maximum Forward Voltage at 2.0 A	V_F	1.1						V
Maximum DC Reverse Current @T_A=25 °C at Rated DC Blocking Voltage @T_A=125 °C	I_R	5 100						μA
Typical Junction Capacitance (Note1)	C_j	30						pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted o lass e ox C board with 4×1.5"×1.5" 3.81×3.81 cm co e ad.

RATING AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

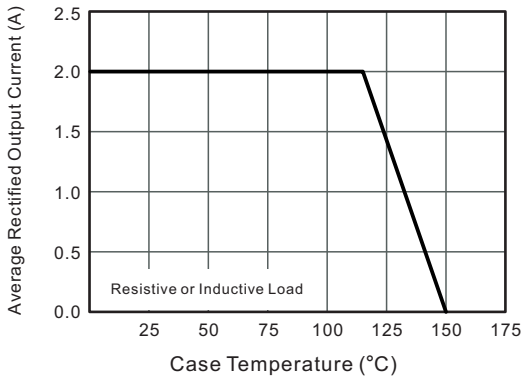


Fig.2 Typical Reverse Characteristics

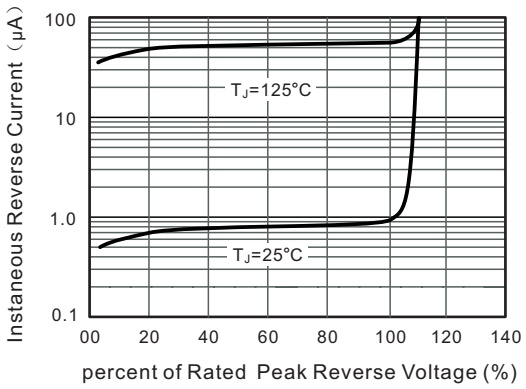


Fig.3 Typical Instaneous Forward Characteristics

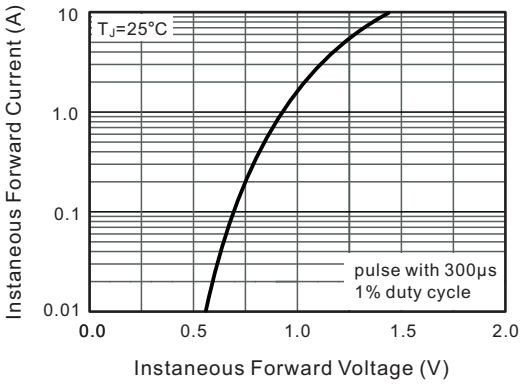


Fig.4 Typical Junction Capacitance

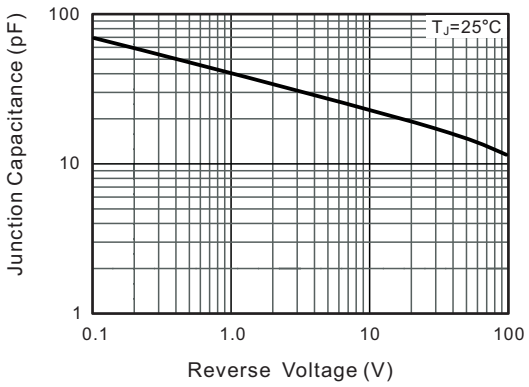
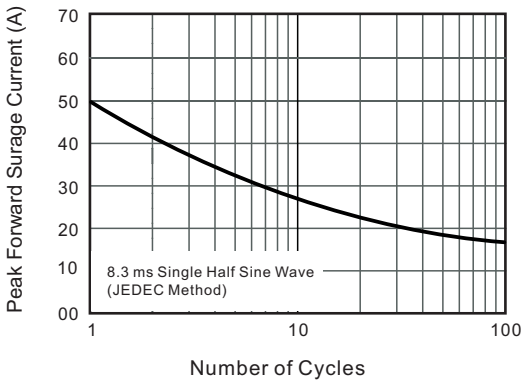


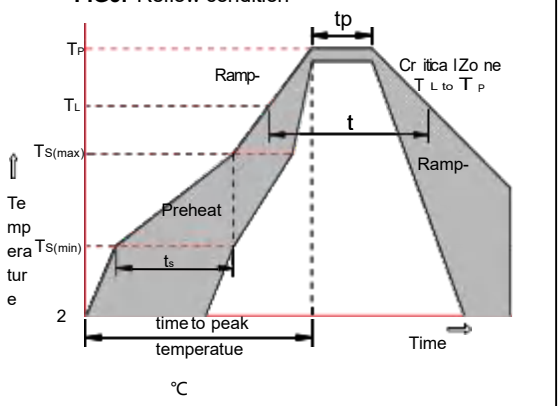
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Soldering parameters

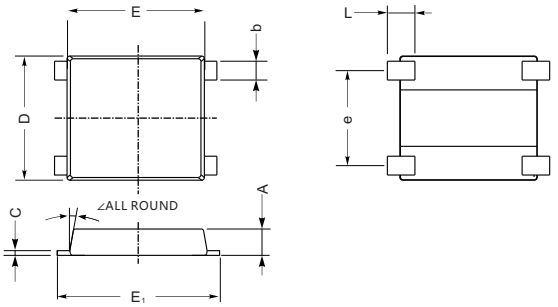
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid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

FIG5: Reflow condition

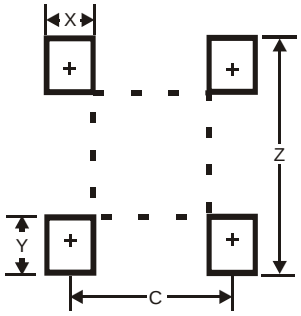


Package Dimensions & Suggested Pad Layout

UMSB



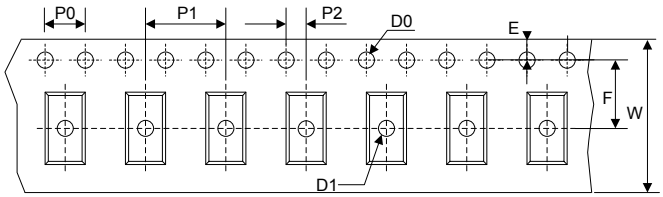
UNIT		A	C	D	E	E_1	L	e	b	∠
mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	10°
	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	
mil	max	59	12	276	299	350	55	209	45	
	min	51	7	244	280	331	31.5	193	37	

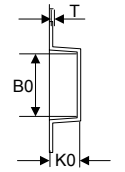


Dimensions	
Z	9.4
X	1.8
Y	2.1
C	5.1

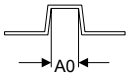
Tape & rell specification

Tape



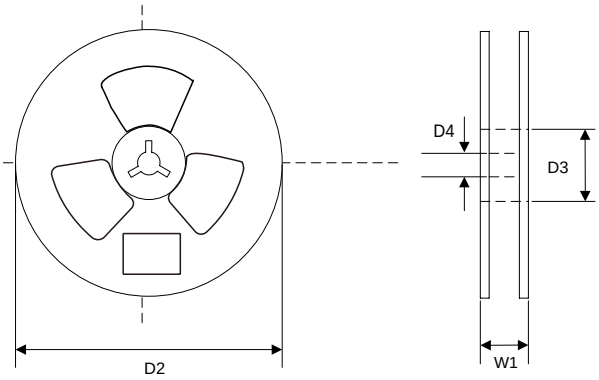


SECTION : B-B



SECTION : A-A

13” Reel



Symbol	Dimension (mm)
P0	4.00±0.20
P1	12.00±0.20
P2	2.00±0.20
D0	1.60±0.15
D1	1.60±0.15
E	1.75±0.20
F	7.50±0.15
W	16.00±0.20
A0	7.00±0.25
B0	9.30±0.25
K0	1.80±0.25
T	0.25±0.10
D2	330.0±5.0
D3	73Min.
D4	16.0±2.5
W1	21.0±3.0
Quantity: 3000PCS	