VOLTAGE RANGE
2000 Volts
CURRENT
2.0 Ampere

FEATURES

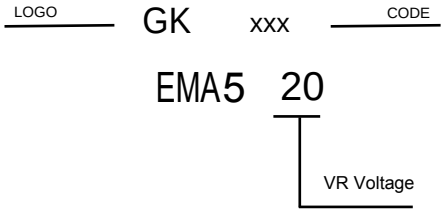
* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* High surge current capability





MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated, solderable per MIL-STD-202F method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.063 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	UNIT	EMA520
Device marking code			EMA520
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	2000
Maximum RMS Voltage	V_{RMS}	V	1400
Maximum DC blocking Voltage	V_{DC}	V	2000
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	2.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	40
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			70
Current squared time @1ms≤t≤8.3ms Tj=25℃	I^2t	A^2s	6.64
Storage temperature	Tstg	℃	-55 ~ +150
Junction temperature	Tj	℃	-55 ~ +150

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EMA520
Maximum instantaneous forward voltage	V_F	V	I_{FM}=2.0A	1.25
Maximum DC reverse current at rated DC blocking voltage	I_R	μA	Tj =25℃	5
			Tj =125℃	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	7

RATING AND CHARACTERISTIC CURVES

Thermal Characteristics （Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	EMA520
Typical Thermal Resistance	RθJ-A(1)	℃/W	70
	RθJ-L(1)		25
	RθJ-C(1)		15

Note
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

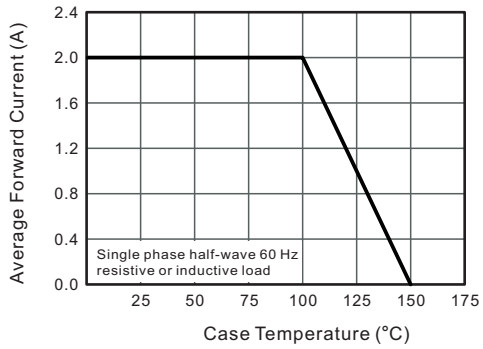


FIG.2-TYPICAL FORWARD CHARACTERISTICS

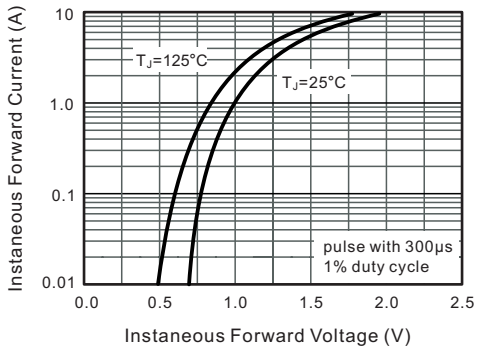


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

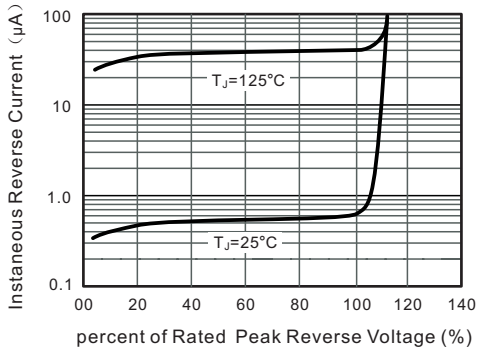


FIG.4-MAXIMUM NON-REPETITIVE FORWARD

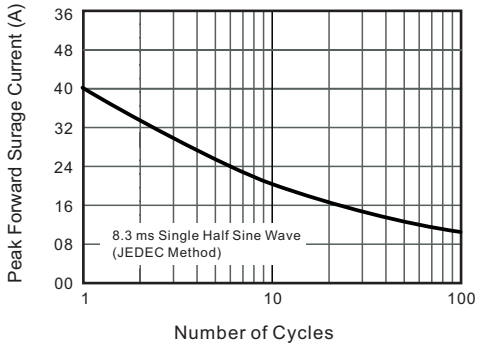
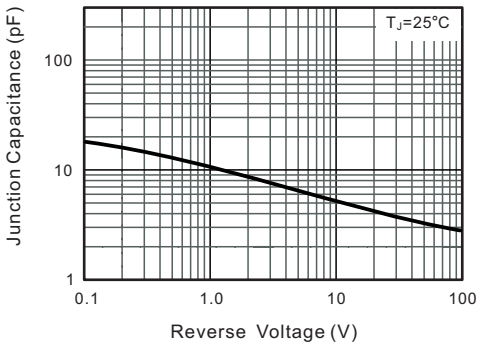


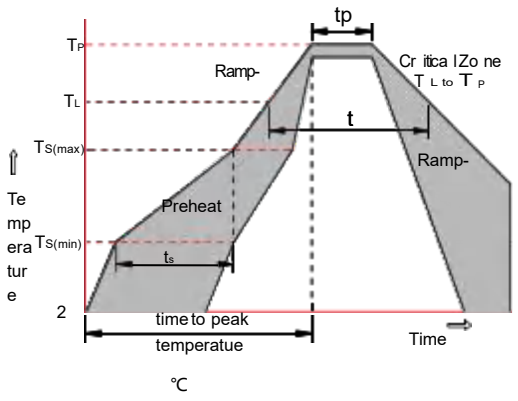
FIG.5-TYPICAL JUNCTION CAPACITANCE



Soldering parameters

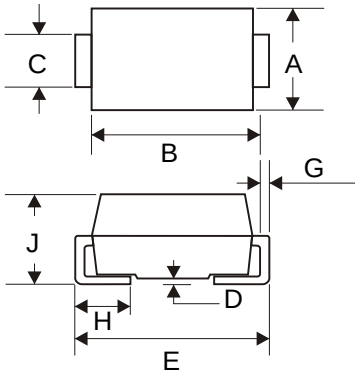
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid 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

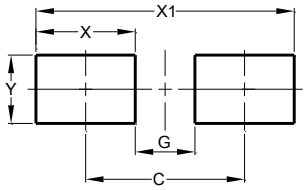


Package Dimensions & Suggested Pad Layout

SMA



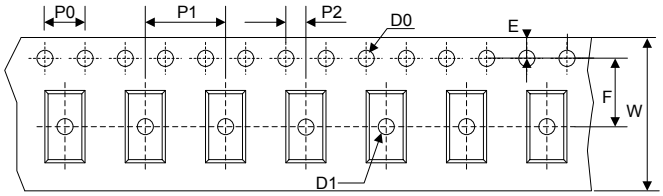
SMA		
Dim	**Min**	**Max**
A	2.40	2.79
B	3.99	4.50
C	1.32	1.47
D	-	0.20
E	4.93	5.28
G	0.15	0.31
H	0.76	1.52
J	1.98	2.29
All Dimensions in mm		

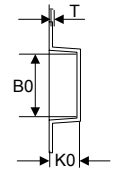


Dimensions	Value (in mm)
C	4.20
G	1.90
X	2.30
X1	6.50
Y	2.00

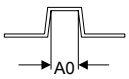
Tape & rell specification

Tape





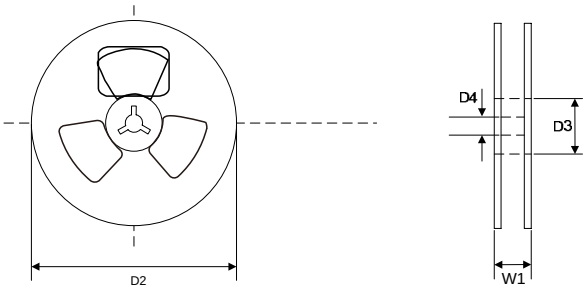
SECTION : B-B



SECTION : A-A

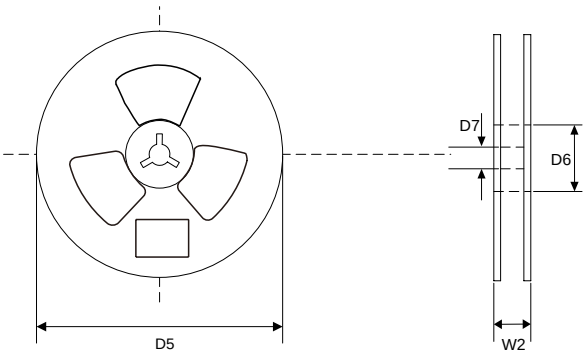
Symbol	Dimension (mm)
P0	4.00±0.20
P1	8.00±0.20
P2	2.00±0.20
D0	1.60±0.20
D1	1.60±0.20
E	1.75±0.20
F	5.50±0.15
W	12.00±0.25
A0	2.75±0.20
B0	5.25±0.20
K0	2.45±0.25
T	0.20±0.10

7” Reel



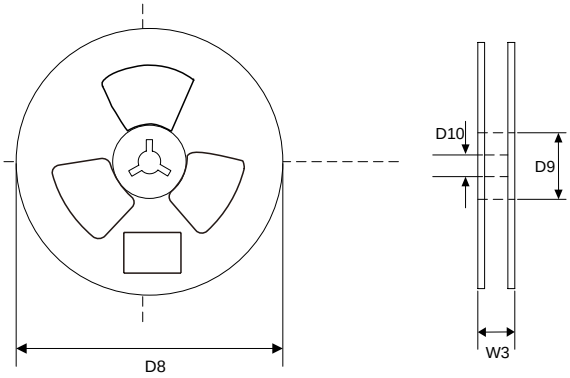
D2	176.0±5.0
D3	55.0Min.
D4	14.0±2.5
W1	14.0±2.5
Quantity: 2000PCS	

11” Reel



D5	276.0±5.0
D6	71.0Min.
D7	14.0±2.5
W2	14.0±2.5
Quantity: 5000PCS	

13” Reel



D8	330.0±5.0
D9	73.0Min.
D10	14.0±2.5
W3	14.0±2.5
Quantity: 5000PCS	