

EM520GA

1.0AMP. SURFACE MOUNT RECTIFIERS

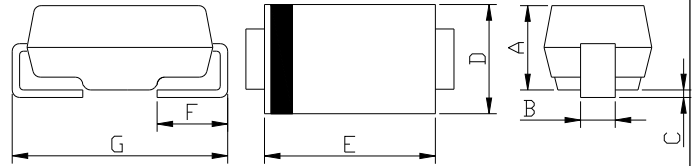
FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed:
260°C/10 seconds at terminals.
- . For surface mounted application.
- . Easy pick and place.

MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity:Color band denotes cathode end
- . Packaging:12mm tape per EIA STD RS-481
- . Mounting position: Any

SMA(DO-214AC)



NO	Measurement (mm)
A	1.98~2.3
B	1.35~1.6
C	0.2MAX
D	2.4~2.9
E	3.8~4.6
F	0.8~1.8
G	4.8~5.80

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 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	SYMBOL	EM520GA	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	2000	V
Maximum RMS Voltage	V_{RMS}	1400	V
Maximum DC blocking Voltage	V_{DC}	2000	V
Maximum Average Forward Rectified Current at $T_L=55^\circ\text{C}$	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0	A
Maximum Forward Voltage at 1.0A DC	V_F	1.1	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 100.0	μA
Typical Junction Capacitance (Note1)	C_J	15	pF
Surge immunity test under IEC 61000-4-5	V_{test}	1	KV
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	75	$^\circ\text{C}/\text{W}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$
Operation Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with $0.2 \times 0.2'' (5.0 \times 5.0\text{mm})$ Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES (EM520GA)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

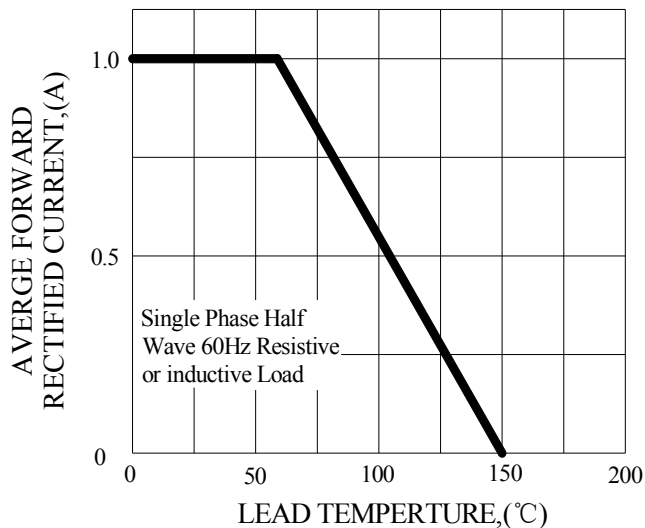


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

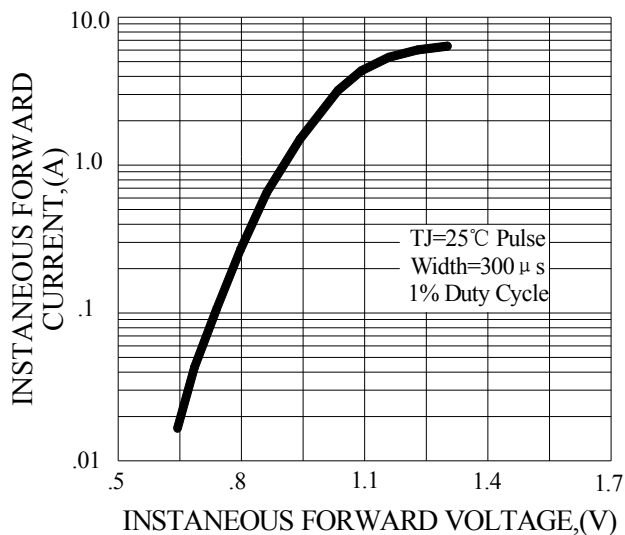


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

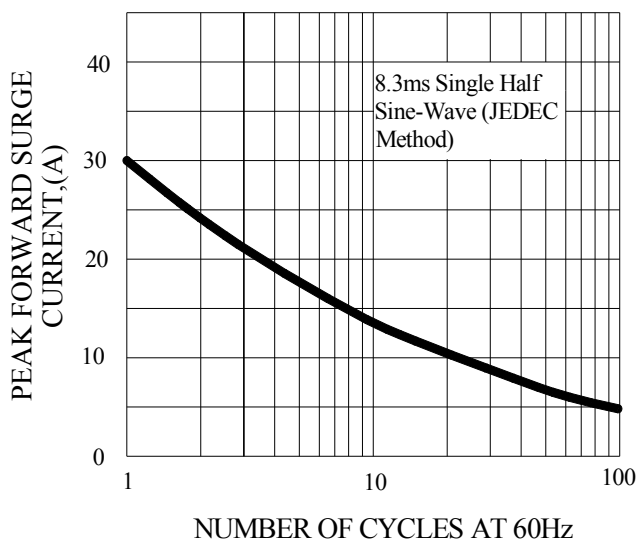
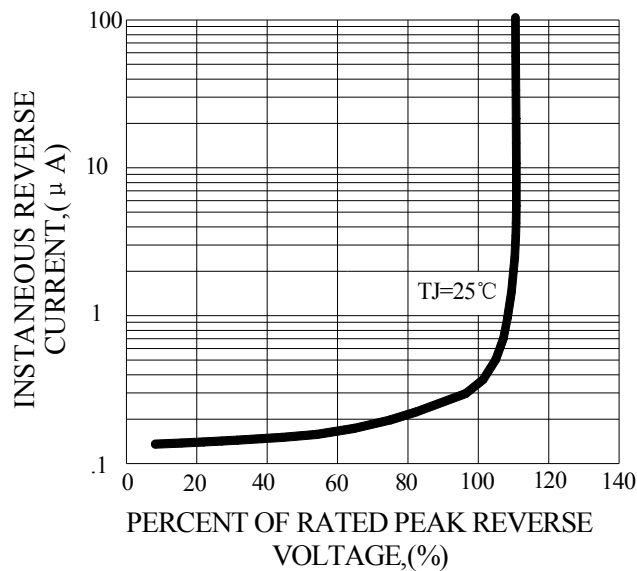
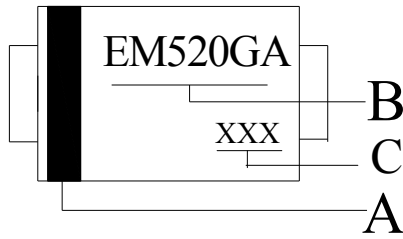


FIG.4-TYPICAL REVERSE CHARACTERISTICS



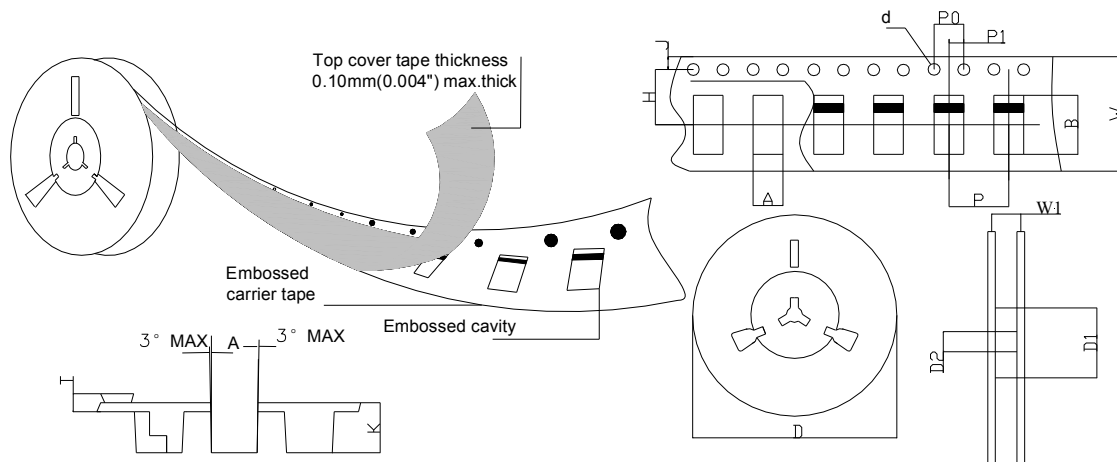
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product name
C	Date code

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	
SYMBOL		SMA(DO-214AC)	
ITEM			
Carrier width	A		3.17(0.125)Max
Carrier length	B		5.81(0.229)Max
Sprocket hole	d		ø1.55(0.061)Typ
Reel outer diameter	D		330.0(13)Typ
Reel inner diameter	D1		50.0(1.969)Min
Feed hole diameter	D2		13.0(0.512)Typ
Sprocket hole position	J		1.75(0.069)Typ
Punch hole position	H		5.55(0.219)Typ
Carrier depth	K		2.42(0.095)Typ
Punch hole pitch	P		4.00(0.157)Typ
Sprocket hole pitch	P0		4.00(0.157)Typ
Embossment center	P1		2.00(0.079)Typ
Overall tape thickness	T		0.30(0.012)Typ
Tape width	W		12.0(0.472)Typ
Reel width	W1		12.4(0.488)Min