



### 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 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.063 gram

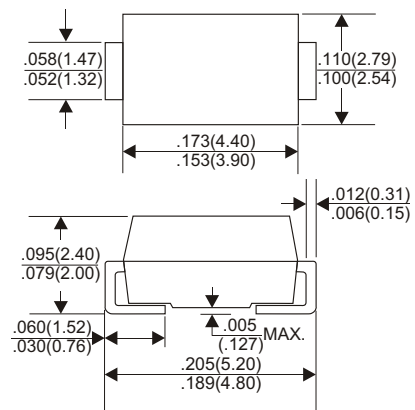
### VOLTAGE RANGE

2000 Volts

### CURRENT

2.0 Ampere

#### DO-214AC(SMA)



### Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT             | EMA520     |
|---|------------------|------------------|------------|
| Device marking code   |                  |                  | EMA520     |
| Maximum Repetitive Peak Reverse Voltage   | VRRM             | V                | 2000       |
| Maximum RMS Voltage   | VRMS             | V                | 1400       |
| Maximum DC blocking Voltage   | VDC              | V                | 2000       |
| Average rectified output current<br>@60Hz sine wave, Resistance load, TL (FIG.1)              | I <sub>O</sub>   | A                | 2.0        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C | I <sub>FSM</sub> | A                | 40         |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, T <sub>j</sub> =25°C    |                  |                  | 70         |
| Current squared time<br>@1ms≤t≤8.3ms T <sub>j</sub> =25°C                                     | I <sup>2</sup> t | A <sup>2</sup> s | 3.735      |
| Storage temperature   | T <sub>stg</sub> | °C               | -55 ~ +150 |
| Junction temperature  | T <sub>j</sub>   | °C               | -55 ~ +150 |

# EMA520

## ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL         | UNIT | TEST CONDITIONS   | EMA520 |
|---|----------------|------|---|--------|
| Maximum instantaneous forward voltage                   | V <sub>F</sub> | V    | I <sub>FM</sub> =2.0A                                     | 1.25   |
| Maximum DC reverse current at rated DC blocking voltage | I <sub>R</sub> | μA   | T <sub>j</sub> =25°C                                      | 5      |
|   |                |      | T <sub>j</sub> =125°C                                     | 100    |
| Typical junction capacitance                            | C <sub>j</sub> | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 7      |

## ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

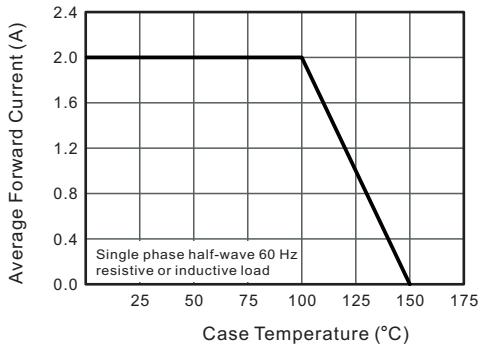
| PARAMETER                  | SYMBOL                           | UNIT | EMA520 |
|----------------------------|----------------------------------|------|--------|
| Typical Thermal Resistance | R <sub>θJ-A</sub> <sup>(1)</sup> | °C/W | 70     |
|                            | R <sub>θJ-L</sub> <sup>(1)</sup> |      | 25     |
|                            | R <sub>θJ-C</sub> <sup>(1)</sup> |      | 15     |

Note

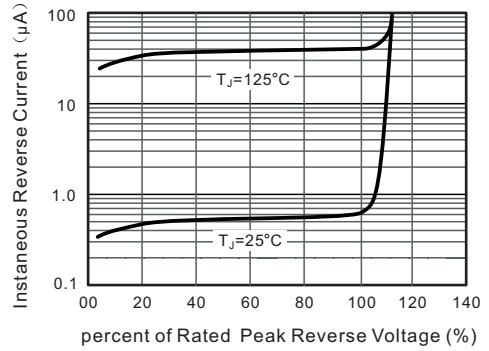
- (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

## RATING AND CHARACTERISTIC CURVES (EMA520)

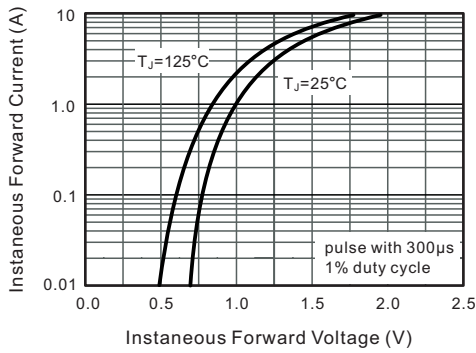
**Fig.1 Forward Current Derating Curve**



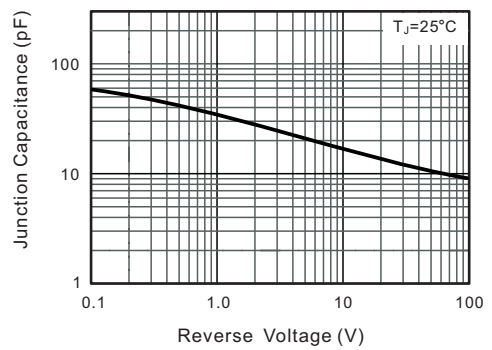
**Fig.2 Typical Reverse Characteristics**



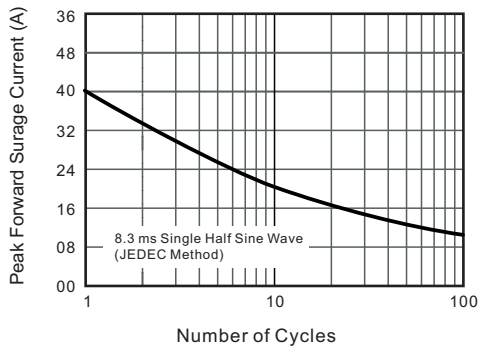
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for* [Diodes - General Purpose, Power, Switching category:](#)

*Click to view products by* [GOODWORK manufacturer:](#)

Other Similar products are found below :

[MMBD3004S-13-F](#) [1N3611](#) [NTE156A](#) [NTE6244](#) [1SS400CST2RA](#) [SDAA13](#) [SHN2D02FUTW1T1G](#) [1N4449](#) [1N456A](#) [1N914BTR](#)  
[D291S45T](#) [BAS 16-02L E6327](#) [BAS 16-02V H6327](#) [BAS 21U E6327](#) [BAS 28 E6327](#) [BAW56DWQ-7-F](#) [BAW56M3T5G](#) [BAW75-TAP](#)  
[MM230L-CAA](#) [IDW40E65D1](#) [JAN1N3600](#) [JAN1N4454UR-1](#) [SMMSD4148T3G](#) [BYW95B/A52A](#) [NSVDAN222T1G](#) [CDSZC01100-HF](#)  
[BAV70HDW-7](#) [BAS28-7](#) [JANTX1N6640](#) [BAW56HDW-13](#) [BAS28 TR](#) [VS-HFA04SD60STR-M3](#) [1SS388-TP](#) [BAV99TQ-13-F](#)  
[BAV99HDW-13](#) [1N4004](#) [MMDB30-E28X](#) [LS4148](#) [IDV15E65D2](#) [W0503RH200S0L](#) [M0268SJ200NLF](#) [M0268RJ200NLF](#) [S3MBF](#) [US1J](#)  
[DAN217U-TP](#) [SHV-06JNS-Q](#) [IDW30C65D1](#) [IDW80C65D1](#) [VS-HFA30TA60CSR-M3](#) [M1MA152WAT1](#)