



#### MINI SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 40 to 200 Volt CURRENT 2 Ampere

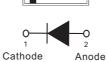
### **FEATURES**

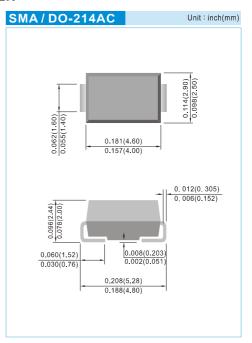
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- · Low power loss, high efficiency
- · High surge capacity
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- Case: JEDEC DO-214AC molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram







#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

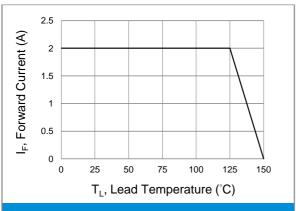
| PARAMETER   |   | SYMBOL             | BR24                    | BR24A       | BR25 | BR26 | BR28 | BR29   | BR210 | BR215 | BR220 | UNITS |
|---|---|--------------------|-------------------------|-------------|------|------|------|--------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage  |   | V <sub>RRM</sub>   | 40                      | 45          | 50   | 60   | 80   | 90     | 100   | 150   | 200   | V     |
| Maximum RMS Voltage   |   | V <sub>RMS</sub>   | 28                      | 31.5        | 35   | 42   | 56   | 63     | 70    | 105   | 140   | V     |
| Maximum DC Blocking Voltage   |   | V <sub>DC</sub>    | 40                      | 45          | 50   | 60   | 80   | 90     | 100   | 150   | 200   | V     |
| Maximum Average Forward Current (See Figure 1)                                      |   | I <sub>F(AV)</sub> | 2                       |             |      |      |      |        |       | А     |       |       |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load |   | I <sub>FSM</sub>   | 50                      |             |      |      |      |        |       | A     |       |       |
| Maximum Forward Voltage at 2A (Notes 1)   |   | V <sub>F</sub>     |                         | 0.7 0.8 0.9 |      |      | .9   | V      |       |       |       |       |
| Maximum DC Reverse Current at Rated DC Blocking<br>Voltage                          | T <sub>J</sub> =25°C<br>T <sub>J</sub> =100°C | I <sub>R</sub>     | 0.05<br>20              |             |      |      |      | mA     |       |       |       |       |
| Typical Thermal Resistance  | (Notes 2)<br>(Notes 3)                        | $R_{_{\theta JA}}$ | 25<br>150               |             |      |      |      | °C / W |       |       |       |       |
| Operating Junction and Storage Temperature Range                                    |   | TJ,TSTG            | -55 to +150 -55 to +175 |             |      |      |      |        | οС    |       |       |       |

#### NOTES:

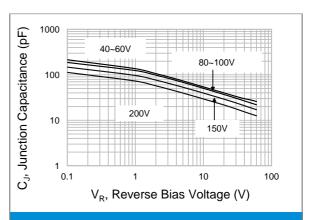
- 1. Pulse Test with PW =300µsec, 1% Duty Cycle.
- 2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
- 3. Mounted on a FR4 PCB, single-sided copper, mini pad.



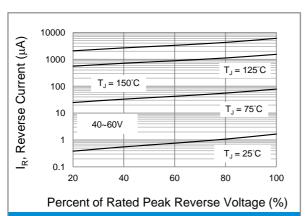




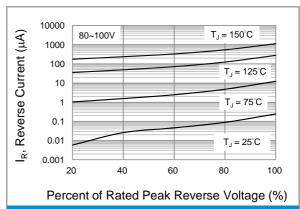
**Fig.1 Forward Current Derating Curve** 



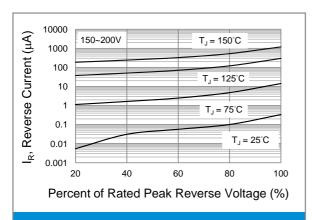
**Fig.2 Typical Junction Capacitance** 



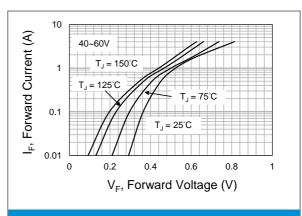
**Fig.3 Typical Reverse Characteristics** 



**Fig.4 Typical Reverse Characteristics** 



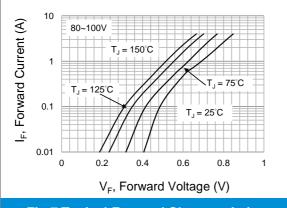
**Fig.5 Typical Reverse Characteristics** 



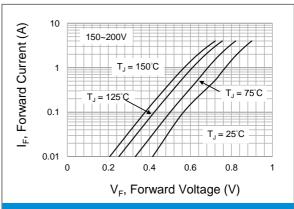
**Fig.6 Typical Forward Characteristics** 



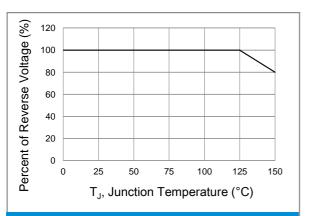




**Fig.7 Typical Forward Characteristics** 



**Fig.8 Typical Forward Characteristics** 

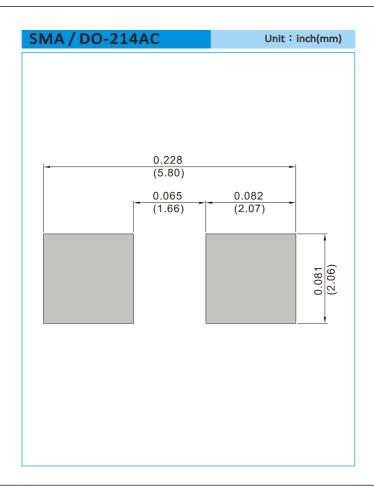


**Fig.9 Operating Temperature Derating Curve** 





### MOUNTING PAD LAYOUT



#### **ORDER INFORMATION**

• Packing information

T/R - 7.5K per 13" plastic Reel

T/R - 1.8K per 7" plastic Reel





# Part No\_packing code\_Version

BR24\_R1\_00001 BR24\_R2\_00001

# For example:



| Packing Code XX                      |                      |                                   |                      |            | Version Code XXXXX   |                                       |  |  |  |
|--------------------------------------|----------------------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|--|--|--|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                 | 2 <sup>nd</sup> Code | HF or RoHS | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |  |  |  |
| Tape and Ammunition Box (T/B)        | Α                    | N/A                               | 0                    | HF         | 0                    | serial number                         |  |  |  |
| Tape and Reel<br>(T/R)               | R                    | 7"                                | 1                    | RoHS       | 1                    | serial number                         |  |  |  |
| Bulk Packing<br>(B/P)                | В                    | 13"                               | 2                    |            |                      |                                       |  |  |  |
| Tube Packing<br>(T/P)                | Т                    | 26mm                              | X                    |            |                      |                                       |  |  |  |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                              | Y                    |            |                      |                                       |  |  |  |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP<br>(PBCU) | U                    |            |                      |                                       |  |  |  |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD)  | D                    |            |                      |                                       |  |  |  |





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