



# SK22F SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20-60 Volts **CURRENT** 2 Amperes

**SMBF**

Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

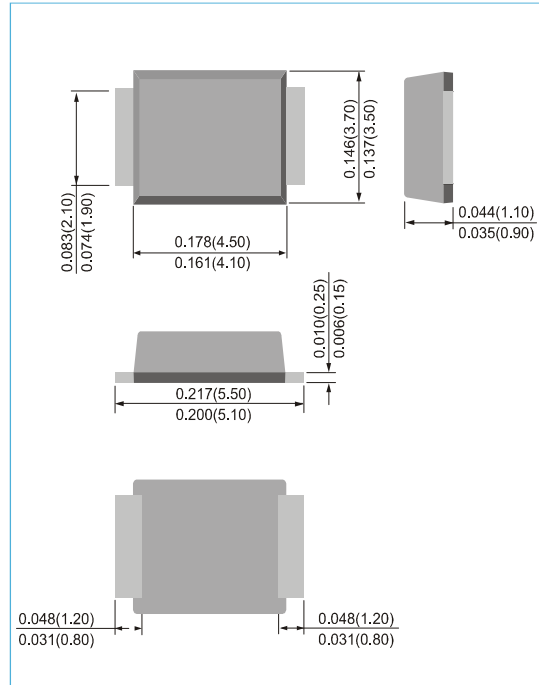
### MECHANICAL DATA

Case : SMBF, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.0018 ounces, 0.05 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| PARAMETER   | SYMBOL                             | SK22F       | SK23F | SK24F | SK25F | SK26F | UNITS  |
|---|------------------------------------|-------------|-------|-------|-------|-------|--------|
| Recurrent Peak Reverse Voltage  | $V_{RRM}$                          | 20          | 30    | 40    | 50    | 60    | V      |
| RMS Voltage   | $V_{RMS}$                          | 14          | 21    | 28    | 35    | 42    | V      |
| DC Blocking Voltage   | $V_R$                              | 20          | 30    | 40    | 50    | 60    | V      |
| Average Forward Current   | $I_{F(AV)}$                        | 2.0         |       |       |       |       | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | $I_{FSM}$                          | 50          |       |       |       |       | A      |
| Forward Voltage at 2.0A   | $V_F$                              | 0.5         |       |       | 0.7   |       | V      |
| DC Reverse Current at Rated DC Blocking Voltage   | $I_R$                              | 0.1         |       |       |       |       | mA     |
| Typical Junction capacitance  | $C_j$                              | 98          |       |       | 75    |       | pF     |
| Typical Thermal Resistance ,Junction to Ambient (Note 1)  | $R_{\theta JA}$<br>$R_{\theta JC}$ | 62.5<br>14  |       |       |       |       | °C / W |
| Operating Junction Temperature and Storage Temperature Range                                      | $T_J, T_{STG}$                     | -55 to +150 |       |       |       |       | °C     |

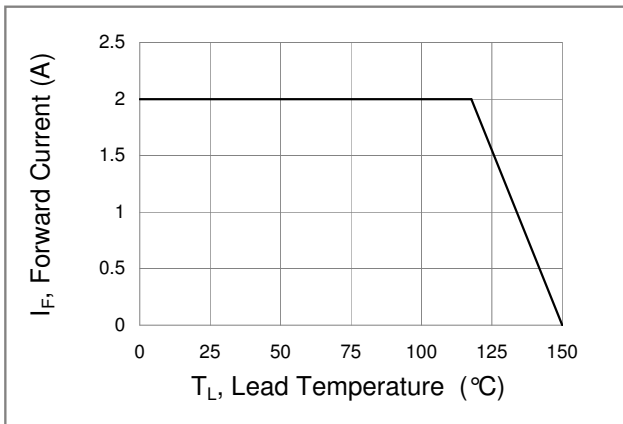
#### NOTES:

1. Mounted on 48cm<sup>2</sup> FR-4 PCB .

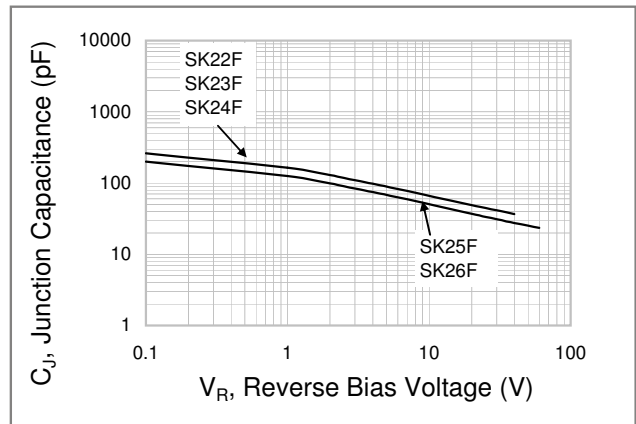


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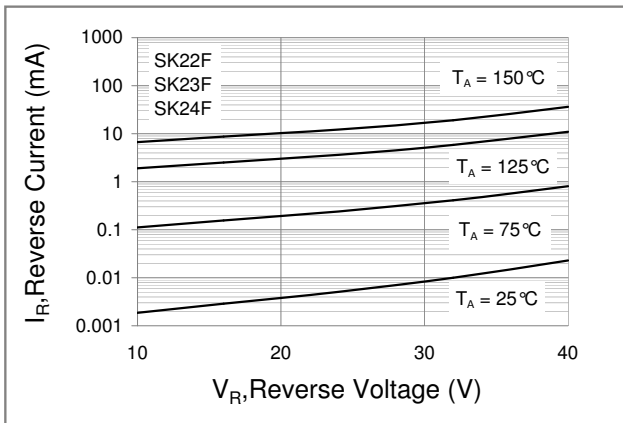
## RATING AND CHARACTERISTIC CURVES



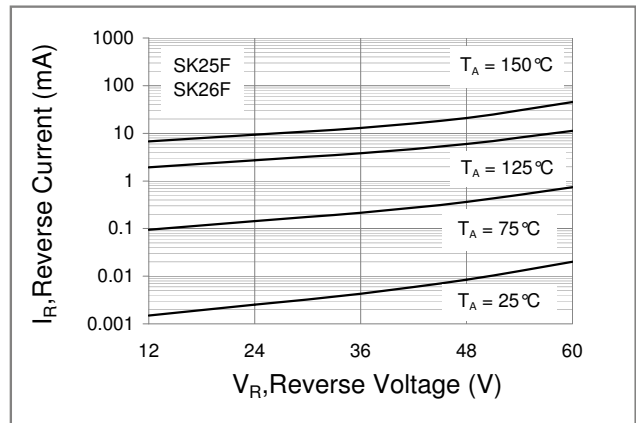
**Fig.1 Forward Current Derating Curve**



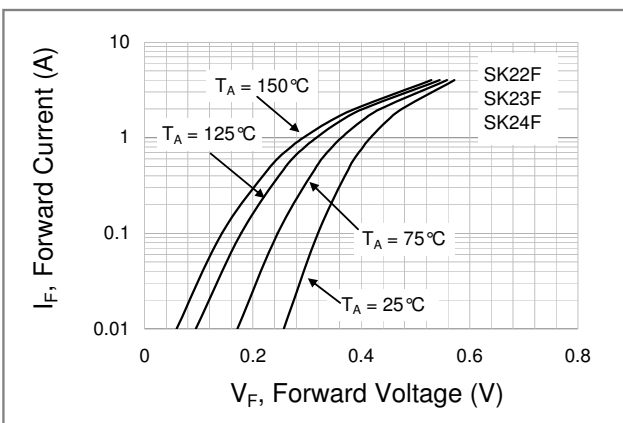
**Fig.2 Typical Junction Capacitance**



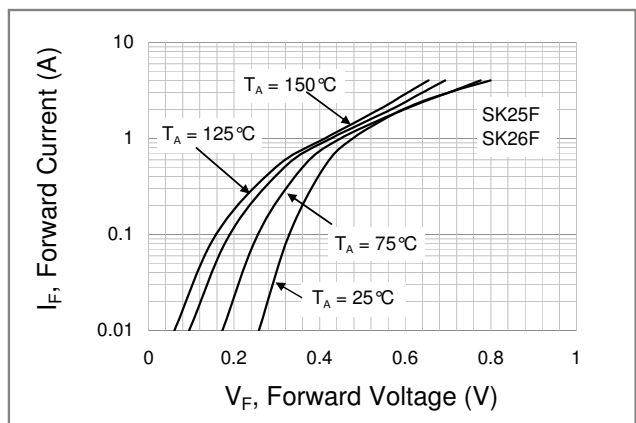
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**

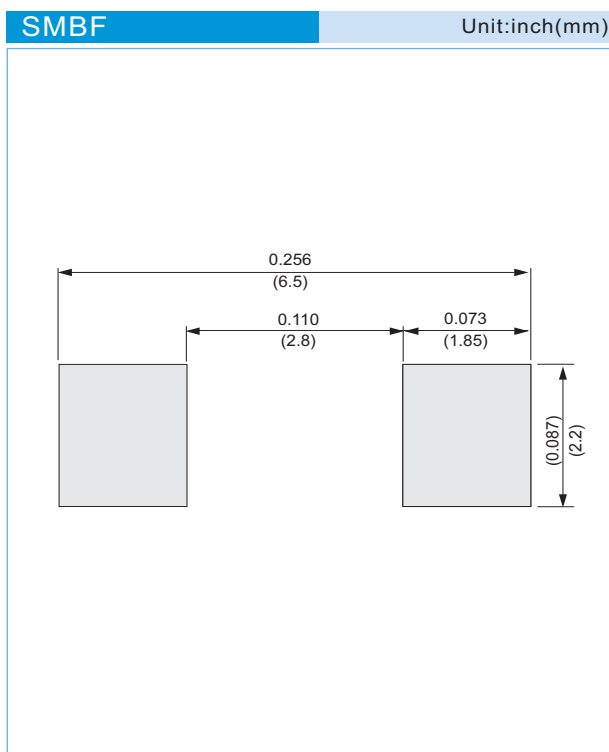


**Fig.6 Typical Forward Characteristics**



# SK22F SERIES

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel

## LEGAL STATEMENT

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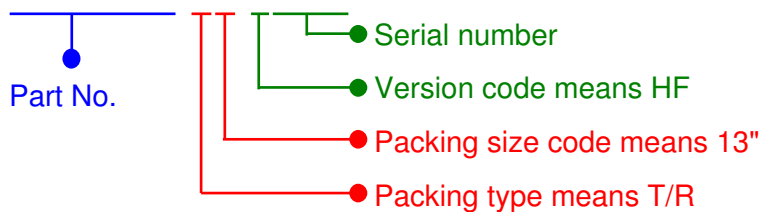


## SK22F SERIES

**Part No\_packing code\_Version**

For example :

**RB500V-40\_R2\_00001**



| Packing Code <b>XX</b> |                            |                   |                            | Version Code <b>XXXXX</b> |                            |   |
|------------------------|----------------------------|-------------------|----------------------------|---------------------------|----------------------------|---|
| Packing type           | <b>1<sup>st</sup> Code</b> | Packing size code | <b>2<sup>nd</sup> Code</b> | HF or RoHS                | <b>1<sup>st</sup> Code</b> | <b>2<sup>nd</sup>~5<sup>th</sup> Code</b> |
| T/B                    | <b>A</b>                   | N/A               | <b>0</b>                   | HF                        | <b>0</b>                   | <b>serial number</b>                      |
| T/R                    | <b>R</b>                   | 7"                | <b>1</b>                   | RoHS                      | <b>1</b>                   | <b>serial number</b>                      |
| B/P                    | <b>B</b>                   | 13"               | <b>2</b>                   |                           |                            |   |
| T/P                    | <b>T</b>                   | 26mm              | <b>X</b>                   |                           |                            |   |
| TRR                    | <b>S</b>                   | 52mm              | <b>Y</b>                   |                           |                            |   |
| TRL                    | <b>L</b>                   | PBCU              | <b>U</b>                   |                           |                            |   |
| FORMING                | <b>F</b>                   | PBCD              | <b>D</b>                   |                           |                            |   |