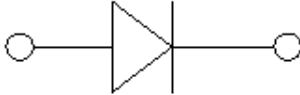


## Schottky Rectifier



### Features

- $V_R$  80V
- $I_{FAV}$  0.5A

### Mechanical Data

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** R8

### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL         | UNIT | VALUE       |
|---|----------------|------|-------------|
| Maximum Recurrent Peak Reverse Voltage                | $V_{RRM}$      | V    | 80          |
| DC Blocking Voltage                                   | $V_R$          | V    | 80          |
| Peak forward surge current (8.3ms, half sine)         | $I_{FSM}$      | A    | 5.5         |
| Repetitive Peak Forward Current@tp=1ms, $\delta=0.25$ | $I_{FRM}$      | A    | 2.5         |
| Average forward current                               | $I_{FAV}$      | A    | 0.5         |
| Power dissipation                                     | $P_D$          | mW   | 410         |
| Thermal Resistance Junction to Ambient Air            | $R\theta_{JA}$ | °C/W | 244         |
| Maximum junction temperature                          | $T_j$          | °C   | -55 to +125 |
| Storage temperature range                             | $T_{stg}$      | °C   | -55 to +125 |

### ■Electrical Characteristics (Ta=25°C Unless otherwise specified)

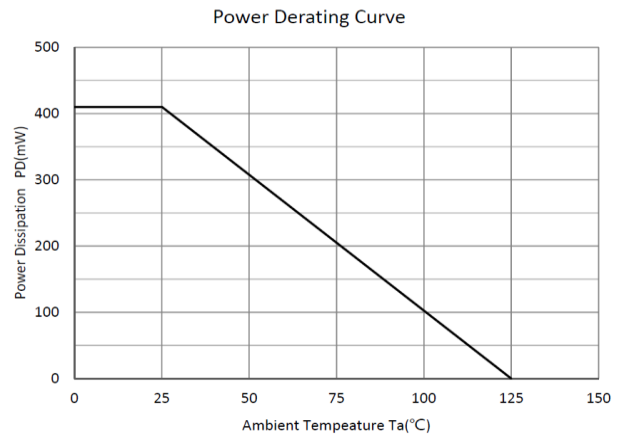
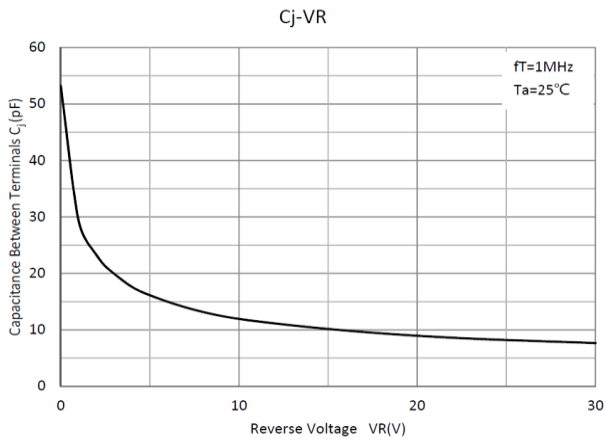
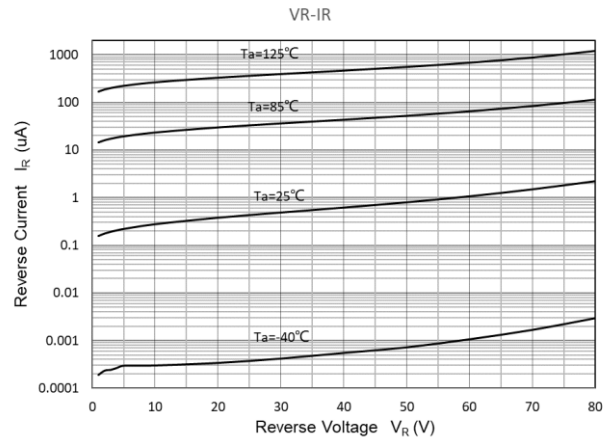
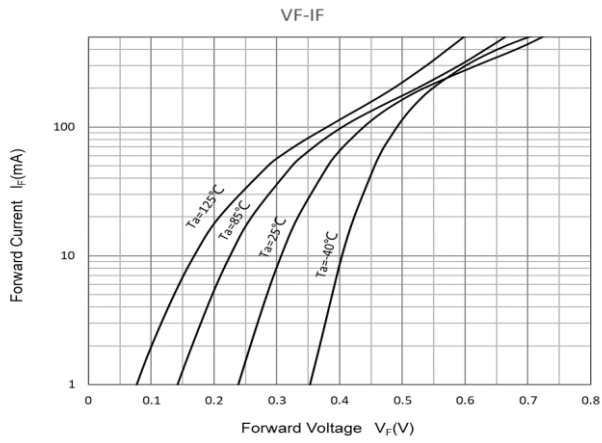
| PARAMETER                    | Symbol | UNIT | Conditions       | Min | Typ | Max |
|------------------------------|--------|------|------------------|-----|-----|-----|
| Breakdown Voltage            | $V_R$  | V    | $I_R=100\mu A$   | 80  |     |     |
| Forward Voltage              | $V_F$  | V    | $I_F=0.5A$       |     |     | 0.8 |
| Reverse Leakage Current      | $I_R$  | mA   | $V_R=80V$        |     |     | 0.2 |
| Typical Junction Capacitance | $C_J$  | pF   | $V_R=4V, f=1MHz$ |     |     | 30  |

### ■Ordering Information (Example)

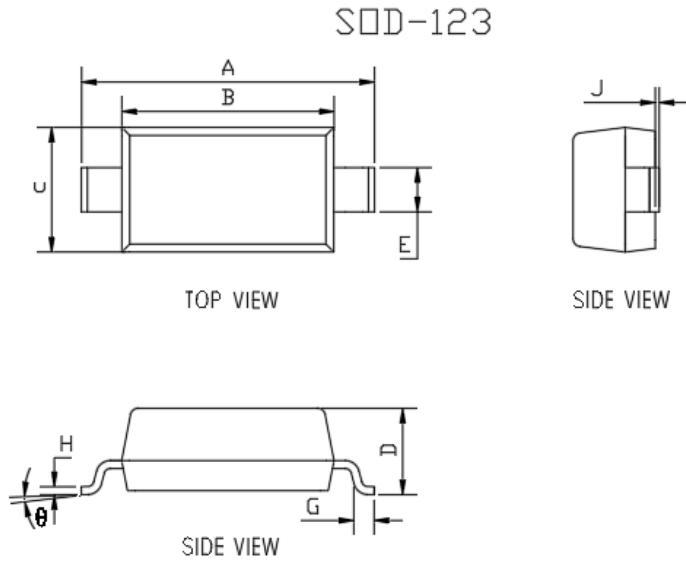
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| MBR0580       | F2           | Approximate 0.011 | 3000                 | 30000                   | 120000                     | 7" reel       |



## ■ Characteristics (Typical)

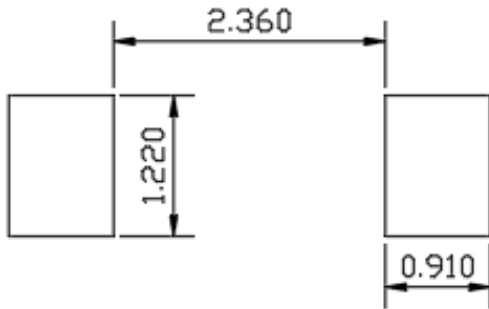


## ■ Outline Dimensions



| DIMENSIONS |        |       |       |       |
|------------|--------|-------|-------|-------|
| DIM        | INCHES |       | MM    |       |
|            | MIN    | MAX   | MIN   | MAX   |
| A          | 0.140  | 0.152 | 3.550 | 3.850 |
| B          | 0.100  | 0.112 | 2.550 | 2.850 |
| C          | 0.055  | 0.071 | 1.400 | 1.800 |
| D          | 0.037  | 0.053 | 0.950 | 1.350 |
| E          | 0.020  | 0.028 | 0.510 | 0.710 |
| G          | 0.006  | 0.018 | 0.150 | 0.450 |
| H          | 0.003  | 0.010 | 0.080 | 0.250 |
| J          | 0.000  | 0.006 | 0.000 | 0.150 |
| $\theta$   | 0      | 8°    | 0     | 8°    |

## ■ Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT

Note:

- All dimensions are in millimeters (mm) unless otherwise specified.  
[所有尺寸均以毫米为单位, 除非另有说明]
- General tolerances:  $\pm 0.10\text{mm}$  unless otherwise specified.  
[通用公差为 $\pm 0.10\text{mm}$ , 除非另有说明]
- Dimensions and tolerances per ASME Y14.5M-2018.  
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
- All dimensions shown are exclusive of burrs and gate residues.  
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.  
[所有尺寸均不包括毛刺和浇口残留, 毛刺与浇口残留的尺寸最大不得超过 0.15mm]
- Dimension b does not include dambar protrusion of max 0.100 mm per side.  
[尺寸b不包括单边最大0.100 mm的中筋凸出部分]
- Dimensions B and C are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.  
[B和C是塑封体的外部极限尺寸, 不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺, 但是包含了包封错位的最大尺寸]
- Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.  
[成型的管脚应为同一平面, 共面性最大为0.1mm]



## MBR0580

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