

# KP823C03 (5A)

(30V / 5A )

## SCHOTTKY BARRIER DIODE

### Features

- Low  $V_F$
- Super high speed switching
- High reliability by planer design

### Applications

- High speed power switching

### Maximum ratings and characteristics

- Absolute maximum ratings

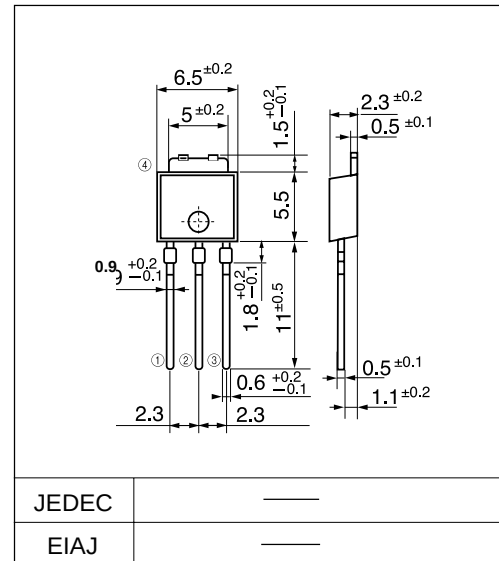
| Item                                | Symbol    | Conditions                                  | Rating      | Unit        |
|-------------------------------------|-----------|---------------------------------------------|-------------|-------------|
| Repetitive peak reverse voltage     | $V_{RRM}$ |                                             | 30          | V           |
| Non-repetitive peak reverse voltage | $V_{RSM}$ | $t_w=500ns$ , duty=1/40                     | 30          | V           |
| Average output current              | $I_o$     | Square wave, duty=1/2<br>$T_c=117^{\circ}C$ | 5.0*        | A           |
| Surge current                       | $I_{FSM}$ | Sine wave<br>10ms                           | 60          | A           |
| Operating junction temperature      | $T_j$     |                                             | -40 to +150 | $^{\circ}C$ |
| Storage temperature                 | $T_{stg}$ |                                             | -40 to +150 | $^{\circ}C$ |

\* Average forward current of centertap full wave connection

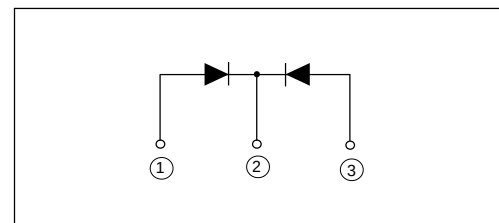
- Electrical characteristics ( $T_a=25^{\circ}C$  Unless otherwise specified )

| Item                 | Symbol        | Conditions       | Max. | Unit          |
|----------------------|---------------|------------------|------|---------------|
| Forward voltage drop | $V_{FM}$      | $I_{FM}=2.5A$    | 0.47 | V             |
| Reverse current      | $I_{RRM}$     | $V_R=V_{RRM}$    | 5.0  | mA            |
| Thermal resistance   | $R_{th(j-c)}$ | Junction to case | 10   | $^{\circ}C/W$ |

### Outline drawings, mm



### Connection diagram

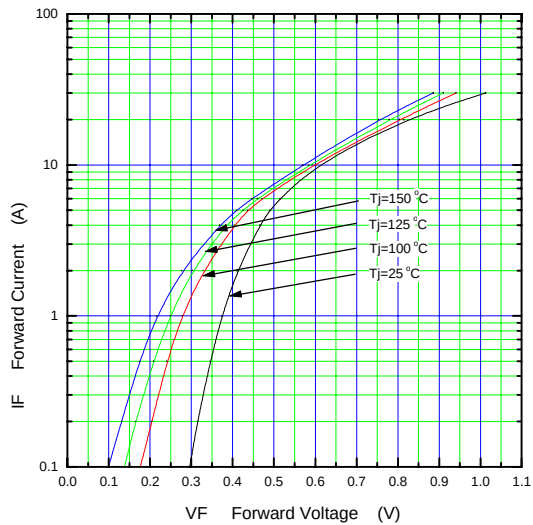


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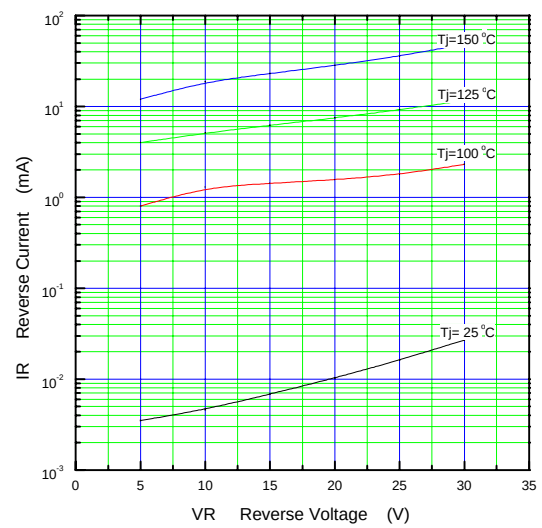
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## Characteristics

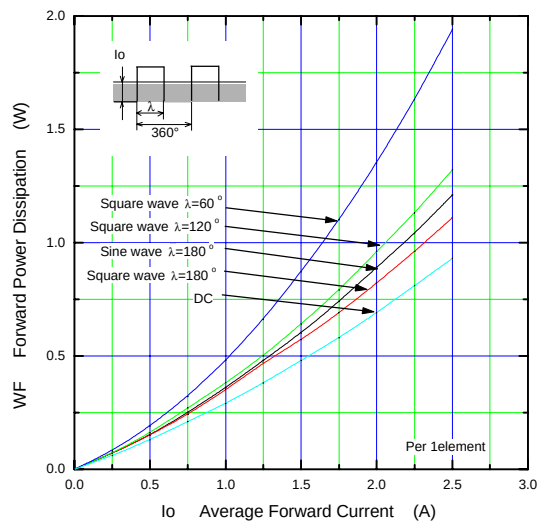
Forward Characteristic (typ.)



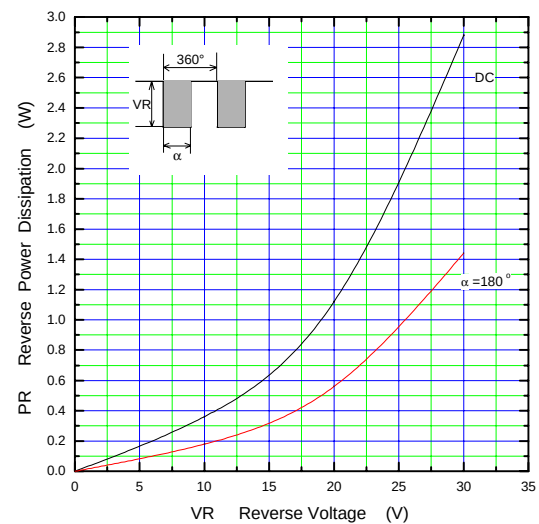
Reverse Characteristic (typ.)



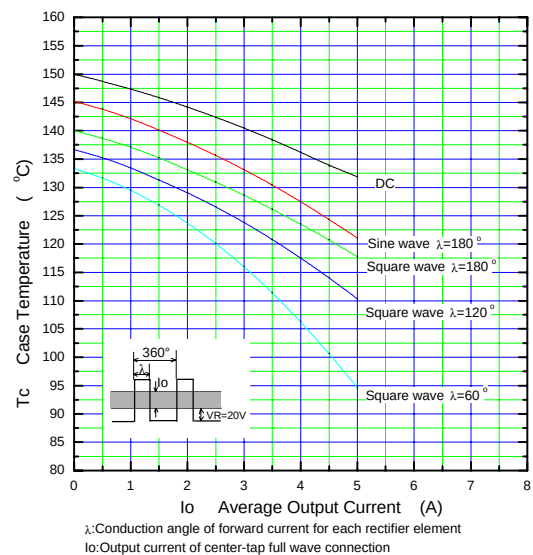
Forward Power Dissipation



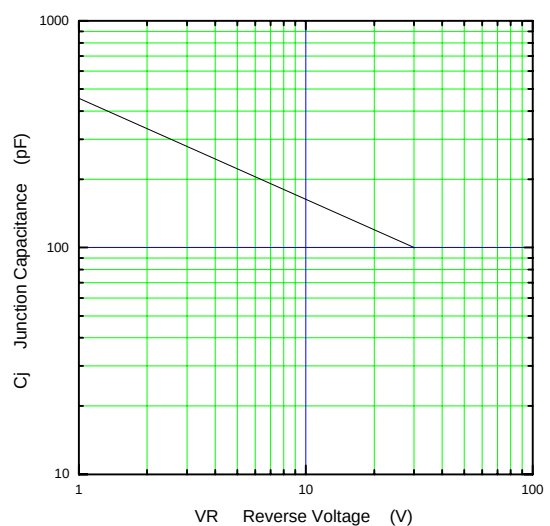
Reverse Power Dissipation



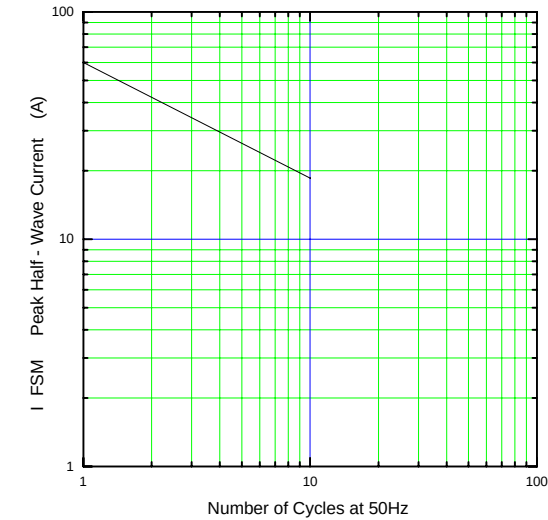
Current Derating ( $I_o$ - $T_c$ )



Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance

