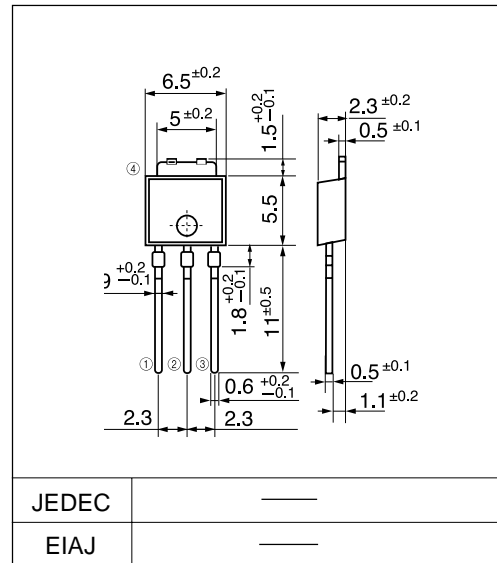


KP823C09 (5A)

(90V / 5A)

SCHOTTKY BARRIER DIODE

Outline drawings, mm



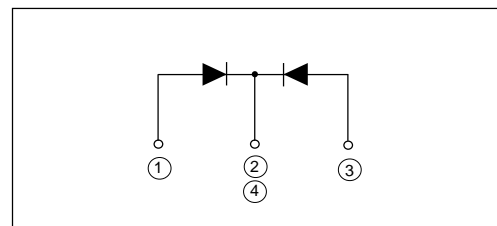
Features

- Surface mount device
- Low V_F
- Super high speed switching
- High reliability by planer design

Applications

- High speed power switching

Connection diagram



Maximum ratings and characteristics

- Absolute maximum ratings

| Item | Symbol | Conditions | Rating | Unit |
|-------------------------------------|-----------|---|-------------|------------------|
| Repetitive peak reverse voltage | V_{RRM} | | 90 | V |
| Non-repetitive peak reverse voltage | V_{RSM} | $t_w=500\text{ns}$, $\text{duty}=1/40$ | 90 | V |
| Average output current | I_o | Square wave, $\text{duty}=1/2$ $T_c=100^\circ\text{C}$ | 5.0* | A |
| Surge current | I_{FSM} | Sine wave 10ms | 60 | A |
| Operating junction temperature | T_j | | -40 to +150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | | -40 to +150 | $^\circ\text{C}$ |

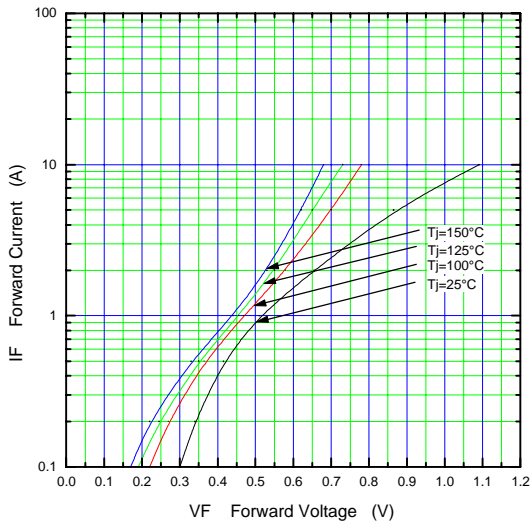
* Average forward current of centertap full wave connection

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

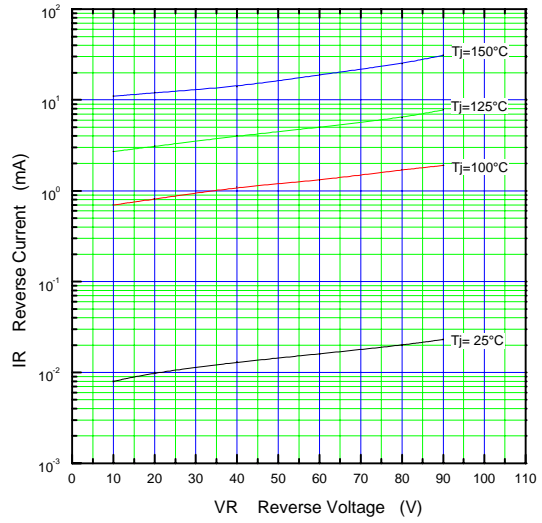
| Item | Symbol | Conditions | Max. | Unit |
|----------------------|---------------|----------------------|------|---------------------------|
| Forward voltage drop | V_{FM} | $I_{FM}=2.5\text{A}$ | 0.9 | V |
| Reverse current | I_{RRM} | $V_R=V_{RRM}$ | 5.0 | mA |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 10 | $^\circ\text{C}/\text{W}$ |

■ Characteristics

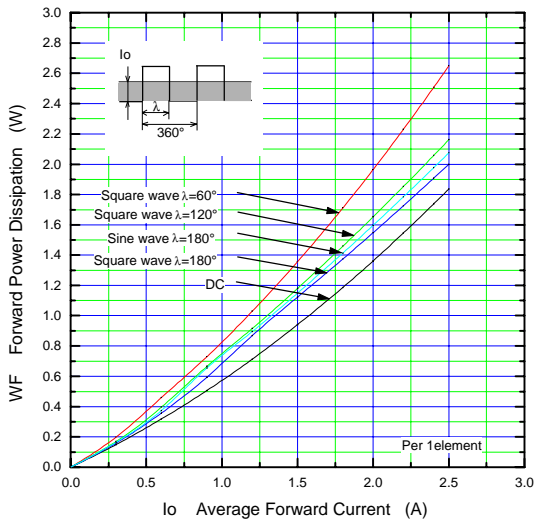
Forward Characteristic (typ.)



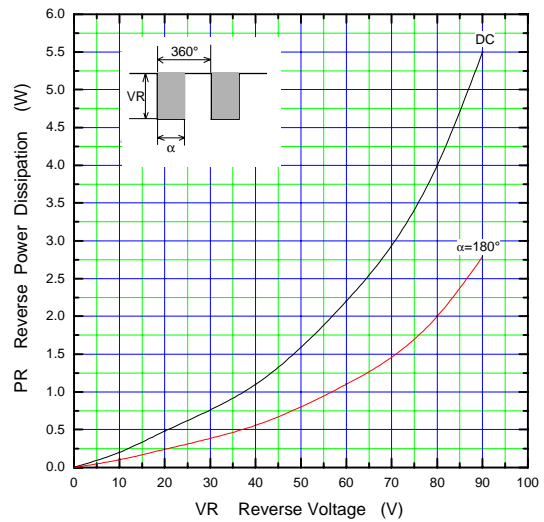
Reverse Characteristic (typ.)



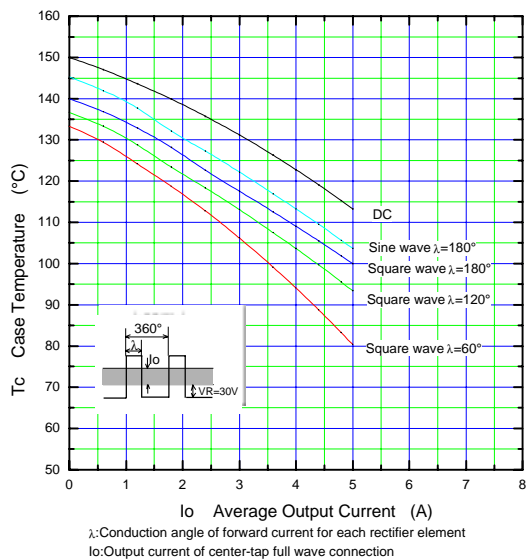
Forward Power Dissipation



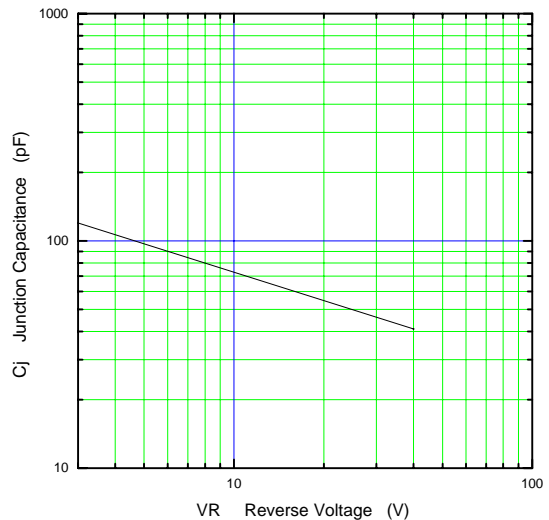
Reverse Power Dissipation



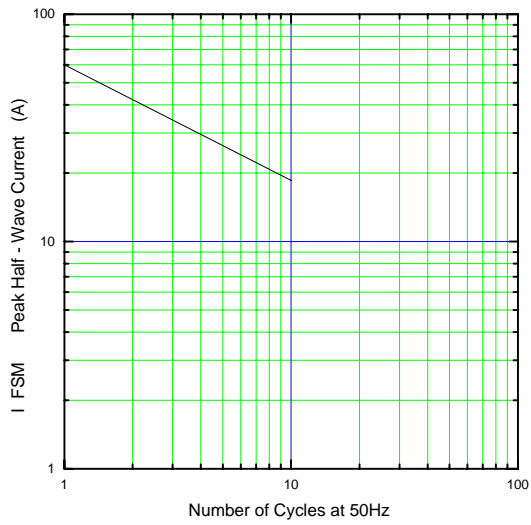
Current Derating (I_o-T_c)



Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance

