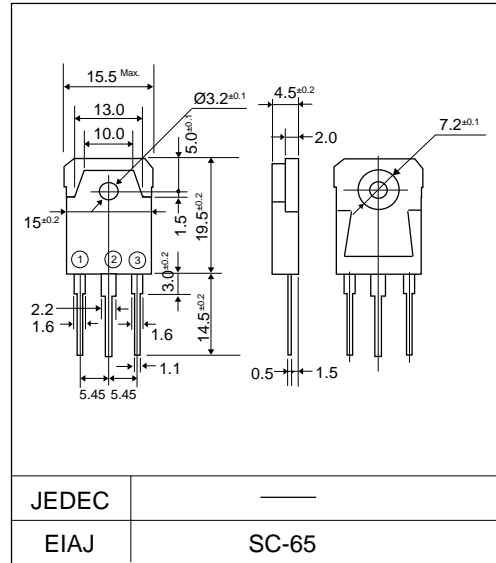


ESAD83-004 (30A)

(40V / 30A)

SCHOTTKY BARRIER DIODE

Outline drawings, mm



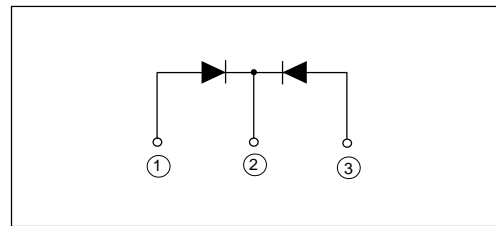
Features

- 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} | | 40 | V |
| Non-repetitive peak reverse voltage | V_{RSM} | $t_w=500ns$, $duty=1/40$ | 48 | V |
| Average output current | I_o | Square wave, $duty=1/2$ $T_c=118^\circ C$ | 30* | A |
| Suege current | I_{FSM} | Sine wave 10ms | 250 | A |
| Operating junction temperature | T_j | | -40 to +150 | $^\circ C$ |
| Storage temperature | T_{stg} | | -40 to +150 | $^\circ C$ |

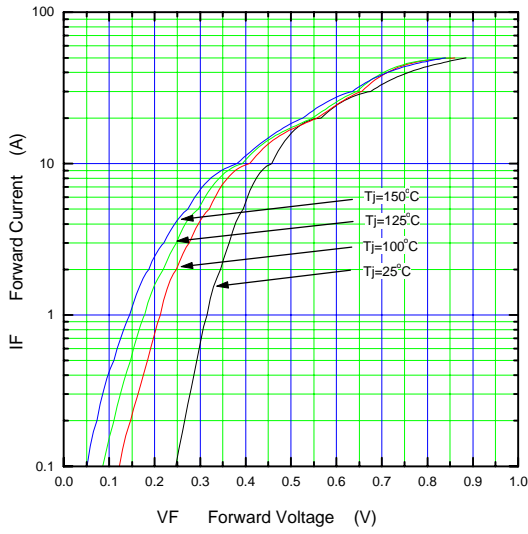
* Average forward current of centertap full wave connection

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

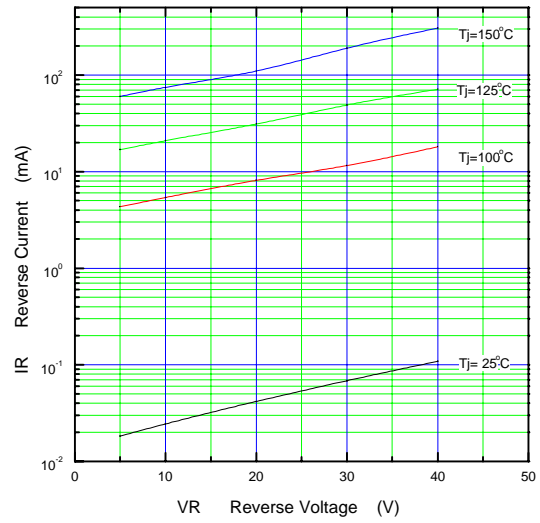
| Item | Symbol | Conditions | Max. | Unit |
|----------------------|---------------|------------------|------|--------------|
| Forward voltage drop | V_{FM} | $I_{FM}=12.5A$ | 0.55 | V |
| Reverse current | I_{RRM} | $V_R=V_{RRM}$ | 20 | mA |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 1.2 | $^\circ C/W$ |

■ Characteristics

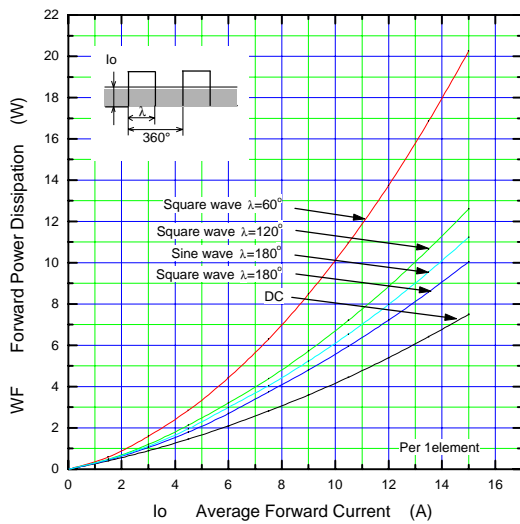
Forward Characteristic (typ.)



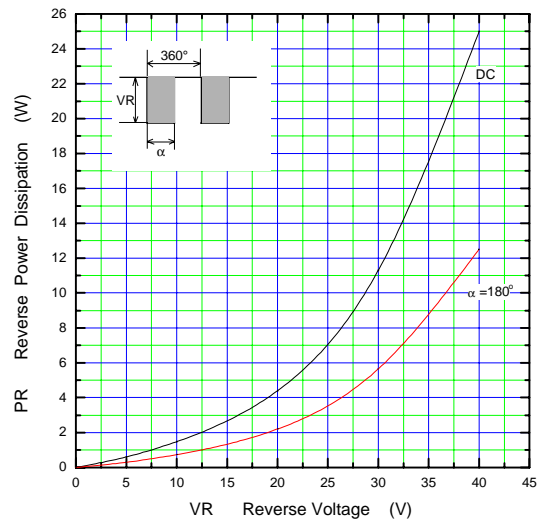
Reverse Characteristic (typ.)



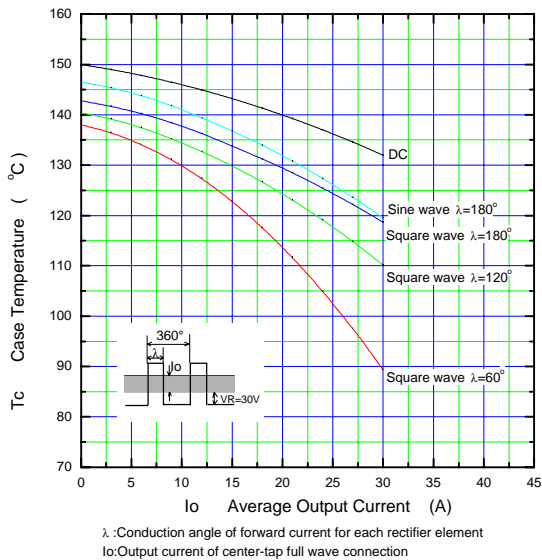
Forward Power Dissipation



Reverse Power Dissipation



Current Derating (I_o-T_c)



Junction Capacitance Characteristic (typ.)

