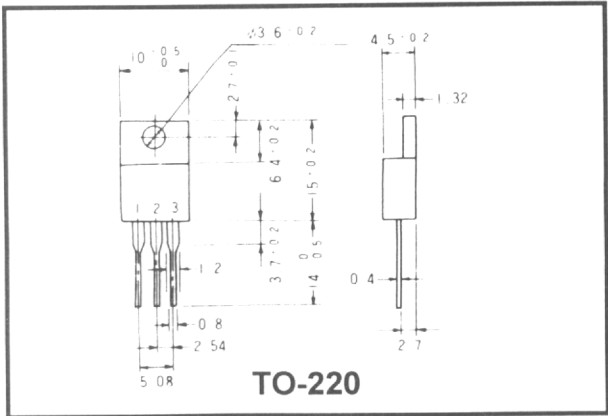


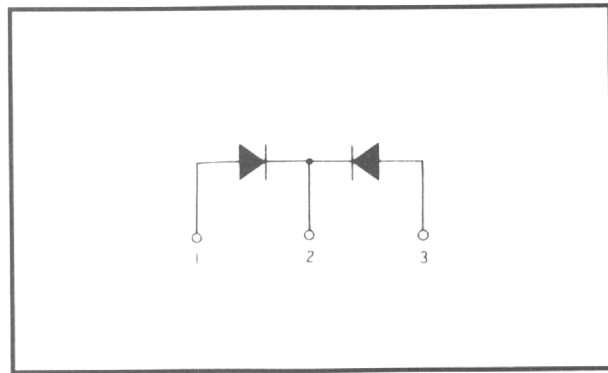
# ESAC82-004K (15A)

## SCHOTTKY BARRIER DIODE

### Outline Drawing



### Connection Diagram



### Features

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

### Applications

- High speed power switching

### Maximum Ratings & Characteristics

- Absolute Maximum Ratings

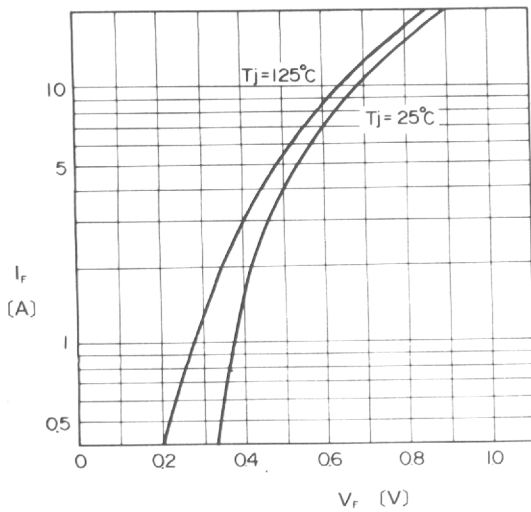
| Items                               | Symbols   | Conditions                                 | Ratings     | Units      |
|-------------------------------------|-----------|--------------------------------------------|-------------|------------|
| Repetitive Peak Reverse Voltage     | $V_{RRM}$ |                                            | 45          | V          |
| Non-Repetitive Peak Reverse Voltage | $V_{RSM}$ | $t_w = 500ns$ , duty = 1/40                | 48          | V          |
| Average Forward Current             | $I_O$     | $T_c = 90^\circ C$ , duty 1/2, Square wave | 15*         | A          |
| Surge Current                       | $I_{FSM}$ | Sine Wave, 10ms                            | 150         | 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

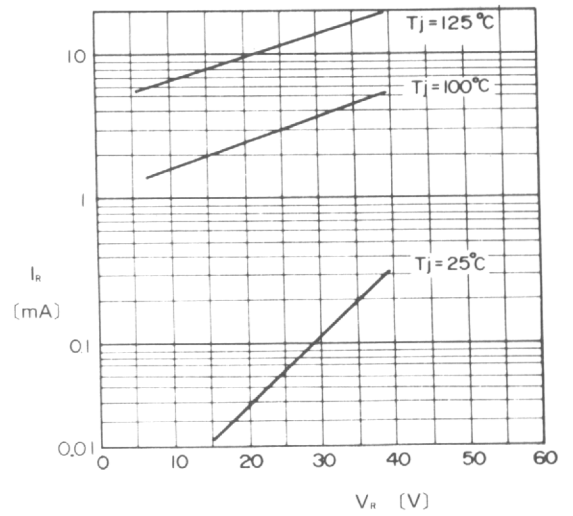
- Electrical Characteristics ( $T_a = 25^\circ C$  Unless otherwise specified)

| Items                | Symbols       | Conditions       | Ratings | Units        |
|----------------------|---------------|------------------|---------|--------------|
| Forward Voltage Drop | $V_F$         | $I_F = 7.5A$     | 0.67    | V            |
| Reverse Current      | $I_R$         | $V_R = V_{RRM}$  | 1.0     | mA           |
| Thermal Resistance   | $R_{th(j-c)}$ | Junction to case | 3.0     | $^\circ C/W$ |

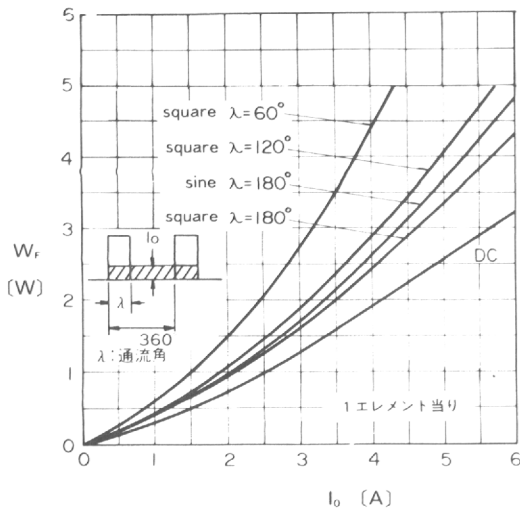
# ESAC82-004K (15A)



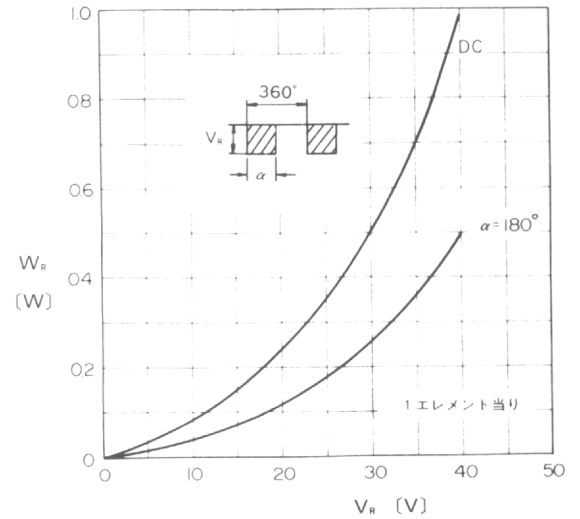
Forward Characteristics



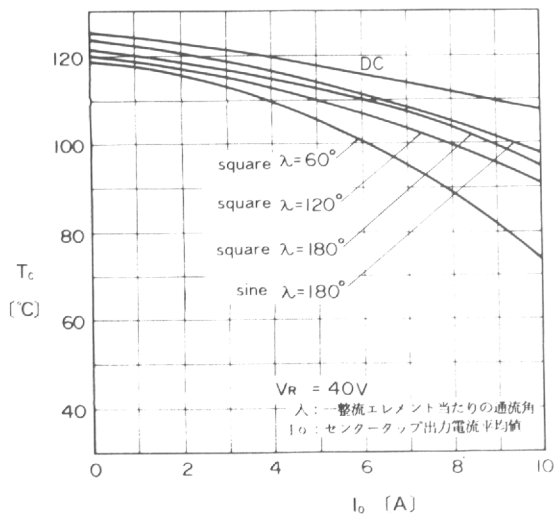
Reverse Characteristics



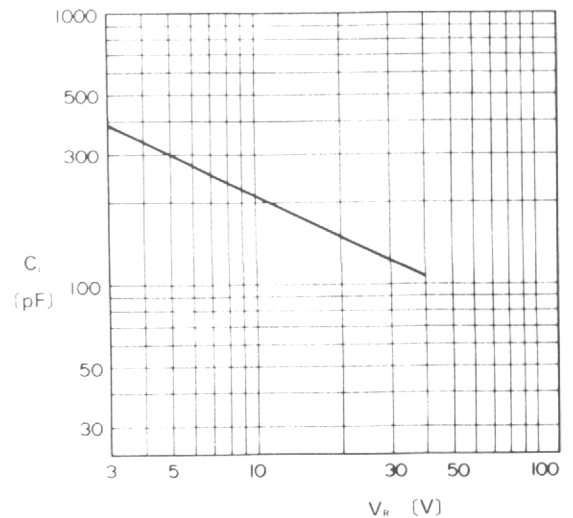
Forward Power Dissipation



Reverse Power Dissipation



Output Current-Case Temperature



Junction Capacitance Characteristics