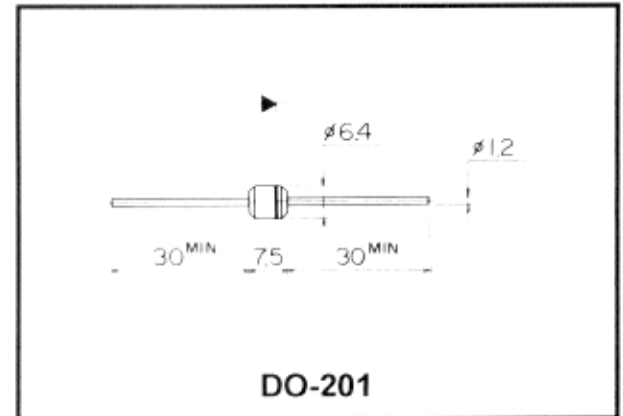


# ERC81S-004 (5A)

## SCHOTTKY BARRIER DIODE

## Outline Drawing



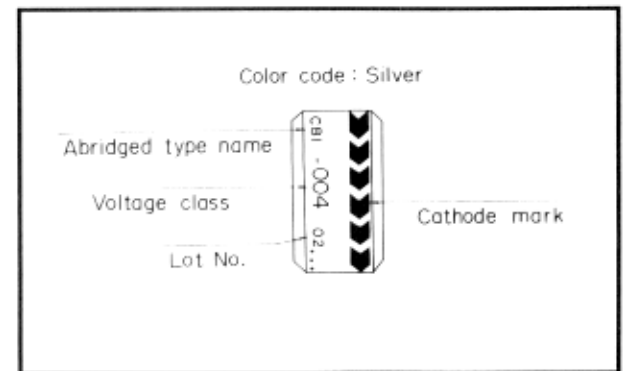
## Features

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

## Applications

- High speed power switching

## Marking



## Maximum Ratings & Characteristics

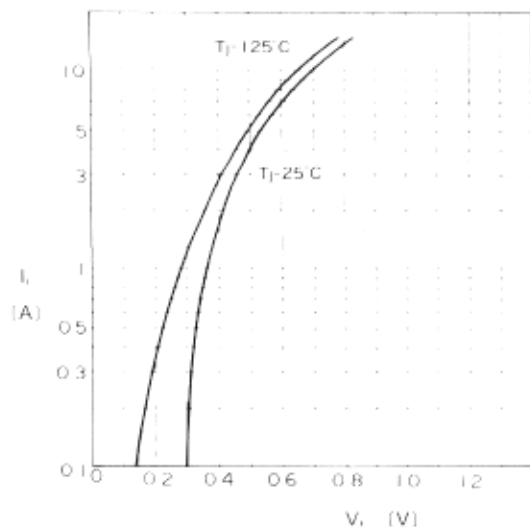
- Absolute Maximum Ratings

| 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             | $I_{F(AV)}$ | $T_a = 25^\circ C$ , duty 1/2, Square wave | 5.0         | A          |
| Surge Current                       | $I_{FSM}$   | Sine Wave, 10ms                            | 140         | A          |
| Operating Junction Temperature      | $T_J$       |                                            | -40 to +150 | $^\circ C$ |
| Storage Temperature                 | $T_{stg}$   |                                            | -40 to +150 | $^\circ C$ |

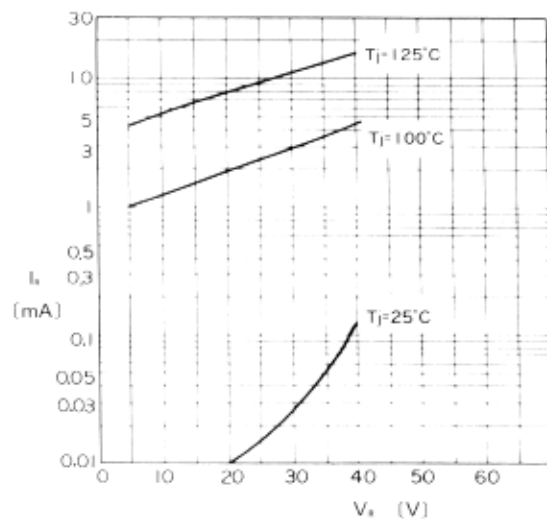
- Electrical Characteristics ( $T_a = 25^\circ C$  Unless otherwise specified)

| Items                | Symbols       | Conditions       | Ratings | Units        |
|----------------------|---------------|------------------|---------|--------------|
| Forward Voltage Drop | $V_F$         | $I_F = 5A$       | 0.55    | V            |
| Reverse Current      | $I_R$         | $V_R = V_{RRM}$  | 5.0     | mA           |
| Junction Capacitance | $C_J$         | $V_R = 5V$       | 300     | pF           |
| Thermal Resistance   | $R_{(THJ-L)}$ | Junction to lead | 12      | $^\circ C/W$ |

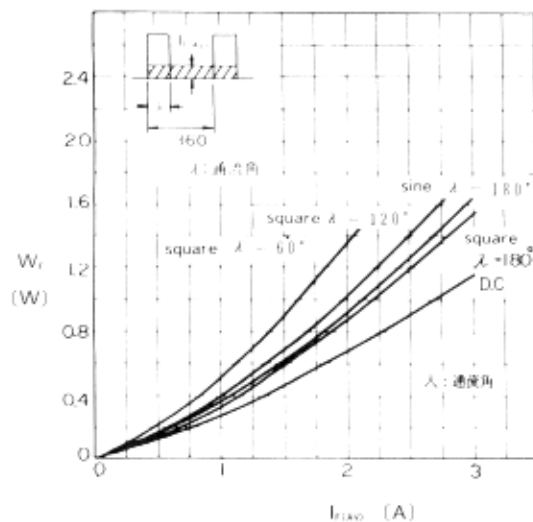
# ERC81S-004 (5A)



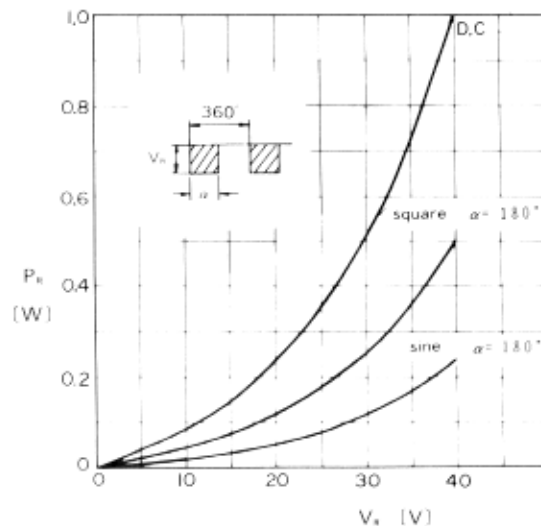
Forward Characteristics



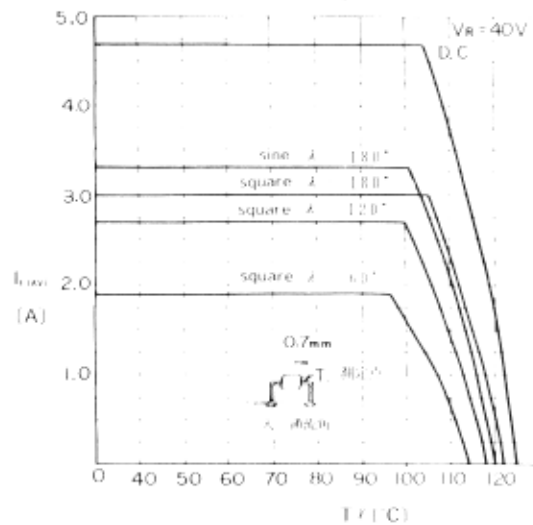
Reverse Characteristics



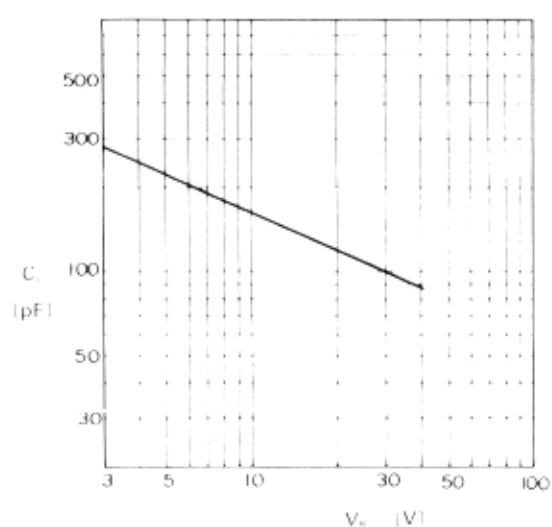
Forward Power Dissipation



Reverse Power Dissipation



$I_{F(av)}$   $T_J$  Characteristics



Junction Capacitance Characteristics