

# TS862C04R (45V/10A)



[0401]

## Low IR Schottky barrier diode

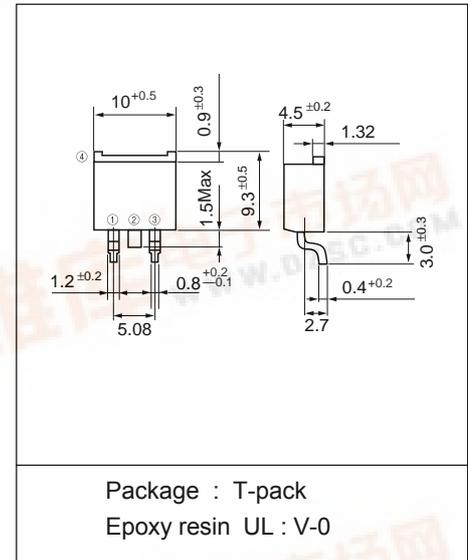
### Features

- Low IR
- Low VF
- Center tap connection

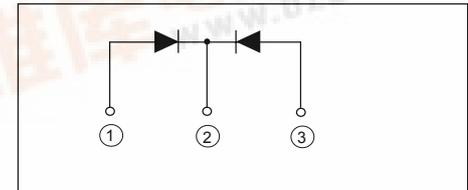
### Applications

- High frequency operation
- DC-DC converters
- AC adapter

### Outline drawings, mm



### Connection diagram



### Maximum ratings and characteristics

- Maximum ratings

| Item   | Symbol    | Conditions                                 | Rating      | Unit       |
|--|-----------|--|-------------|------------|
| Repetitive peak surge reverse voltage          | $V_{RSM}$ | $t_w=500ns, duty=1/40$                     | 45          | V          |
| Repetitive peak reverse voltage                | $V_{RRM}$ |  | 45          | V          |
| Isolating voltage                              | $V_{iso}$ | Terminals-to-Case, AC.1min.                | 1500        | V          |
| Average output current                         | $I_o$     | Square wave, duty=1/2<br>$T_c=138^\circ C$ | 10 *        | A          |
| Non-repetitive surge current                   | $I_{FSM}$ | Sine wave 10ms                             | 125         | A          |
| non-repetitive reverse surge power dissipation | PRM       | $t_w=10\mu s, T_j=25^\circ C$              | 330         | W          |
| Operating junction temperature                 | $T_j$     |  | +150        | $^\circ C$ |
| Storage temperature                            | $T_{stg}$ |  | -40 to +150 | $^\circ C$ |

\* Out put current of center tap full wave connection

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

| Item               | Symbol        | Conditions       | Max. | Unit         |
|--------------------|---------------|------------------|------|--------------|
| Forward voltage ** | $V_F$         | $I_F=5A$         | 0.61 | V            |
| Reverse current ** | $I_R$         | $V_R=40V$        | 150  | $\mu A$      |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 2.0  | $^\circ C/W$ |

\*\*Rating per element

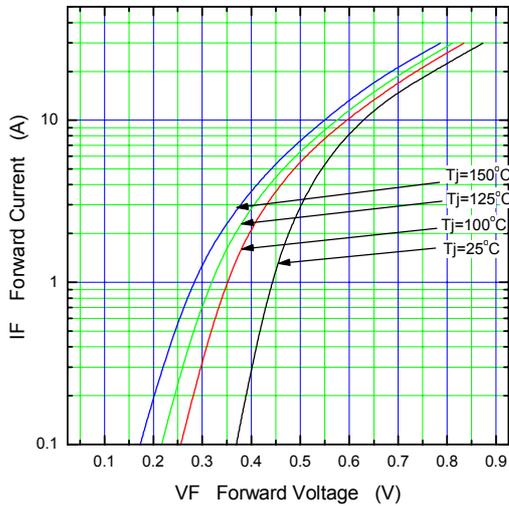
### Mechanical characteristics

|                 |                    |            |     |
|-----------------|--------------------|------------|-----|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N·m |
|-----------------|--------------------|------------|-----|

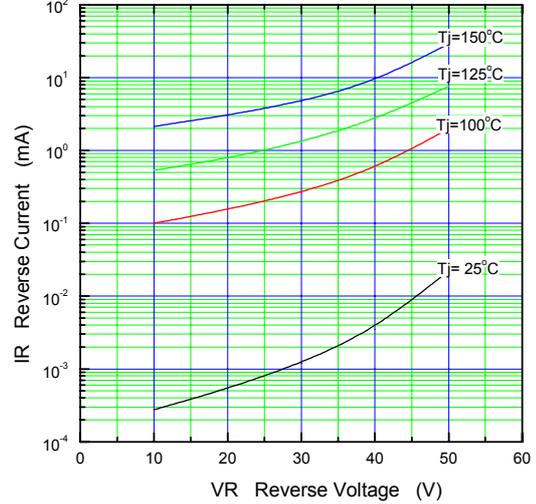


■ Characteristics

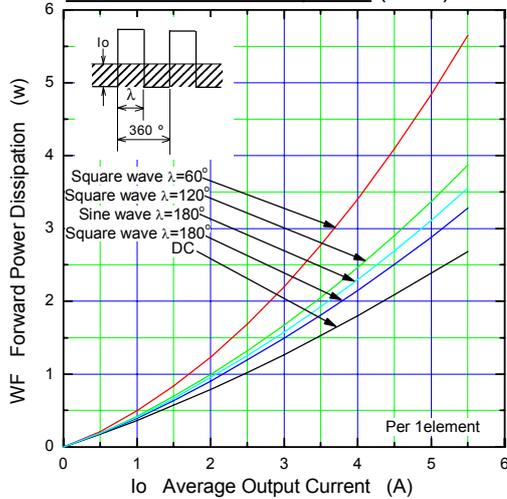
Forward Characteristic (typ.)



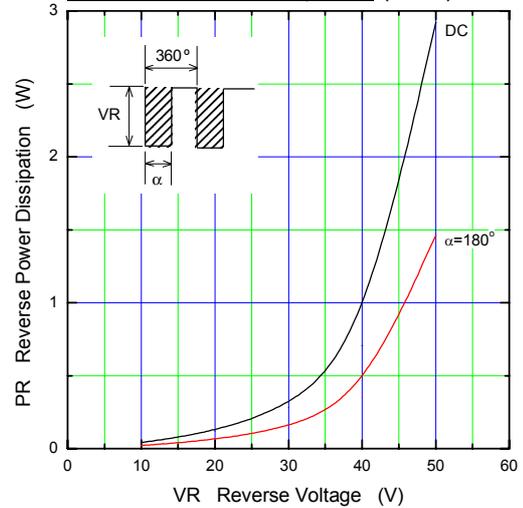
Reverse Characteristic (typ.)



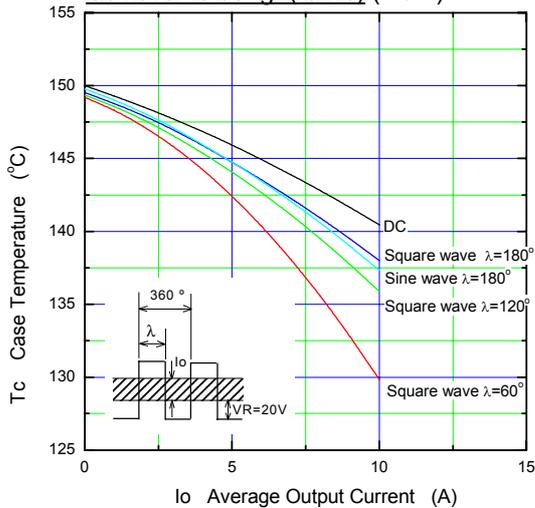
Forward Power Dissipation (max.)



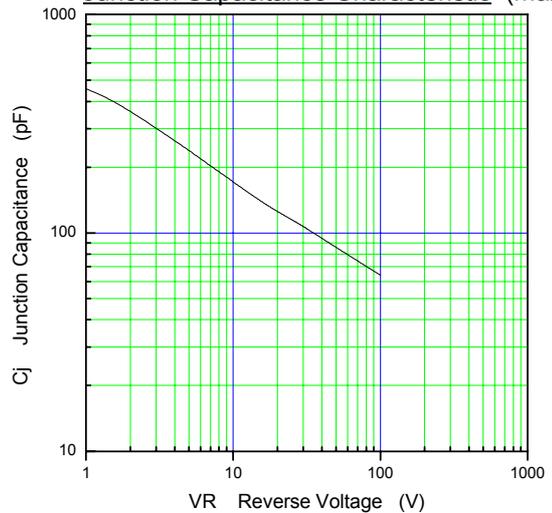
Reverse Power Dissipation (max.)



Current Derating (Io-Tc) (max.)



Junction Capacitance Characteristic (max.)



λ: Conduction angle of forward current for each rectifier element

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