

TS868C04R (45V/30A)

[200509]

Low IR Schottky barrier diode

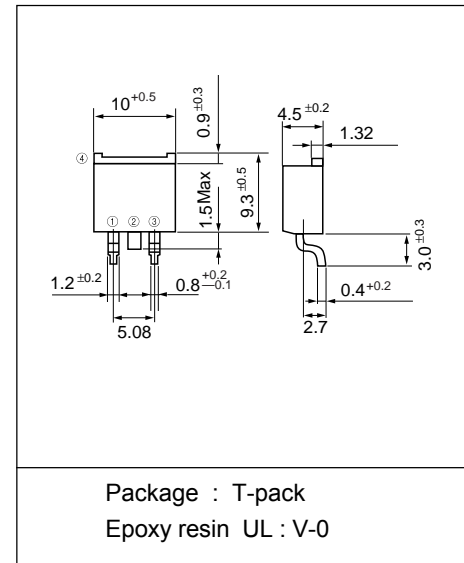
Features

- Low IR
- Low VF
- Center tap connection

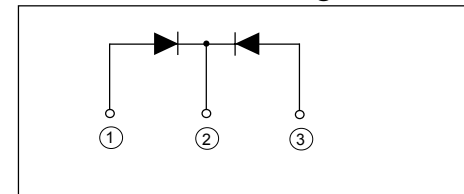
Applications

- 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} | $tw=500ns, duty=1/40$ | 45 | V |
| Repetitive peak reverse voltage | V_{RRM} | | 45 | V |
| Isolating voltage | Viso | Terminals-to-Case, AC. 1min. | 1500 | V |
| Average output current | I_o | Square wave, duty=1/2 $T_c=122^{\circ}C$ | 30 * | A |
| Non-repetitive surge current | I_{FSM} | Sine wave 10ms | 160 | A |
| non-repetitive reverse surge power dissipation | PRM | $tw=10\mu s, T_j=25^{\circ}C$ | 1000 | 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)

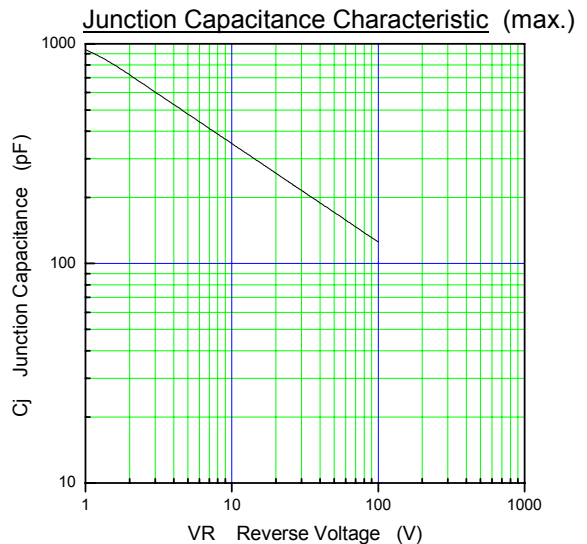
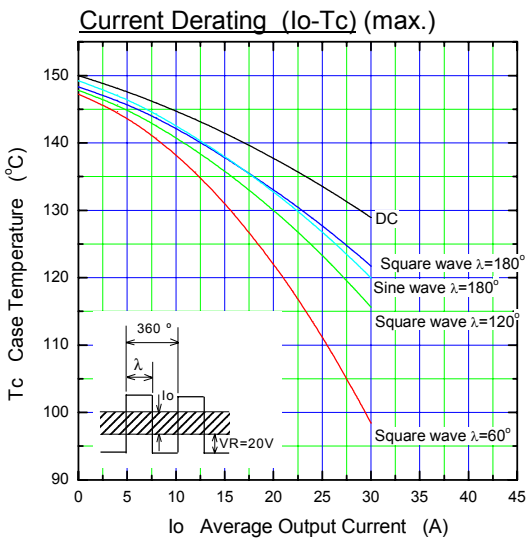
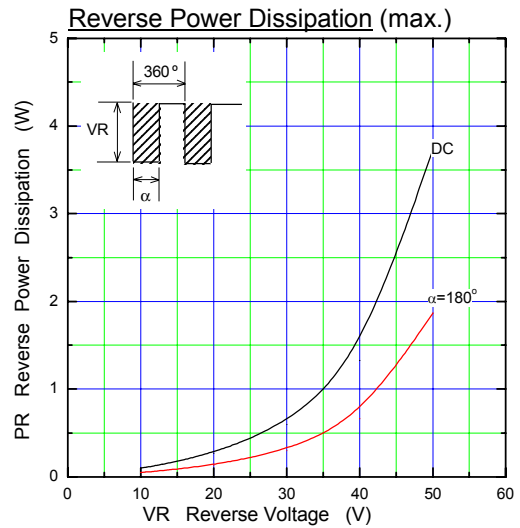
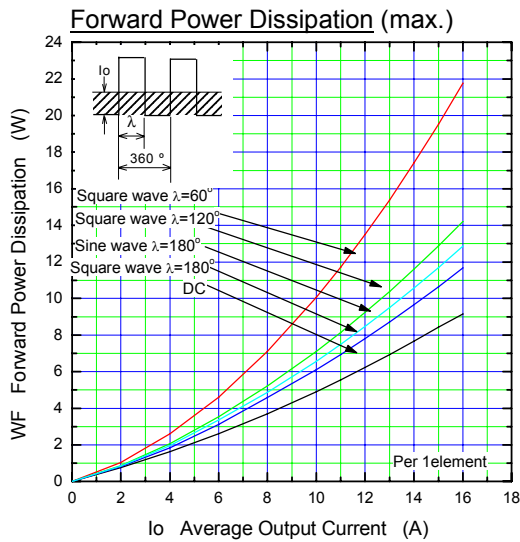
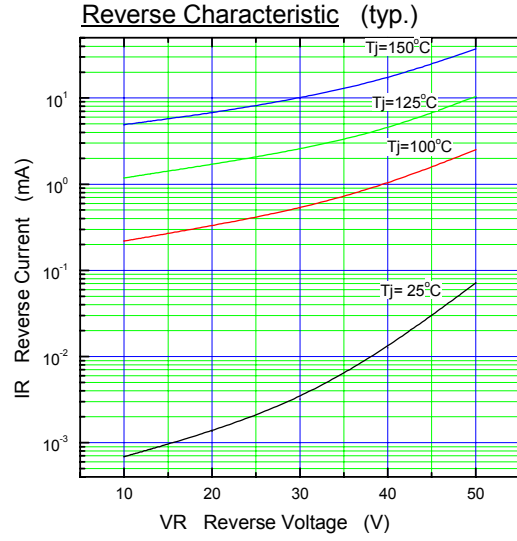
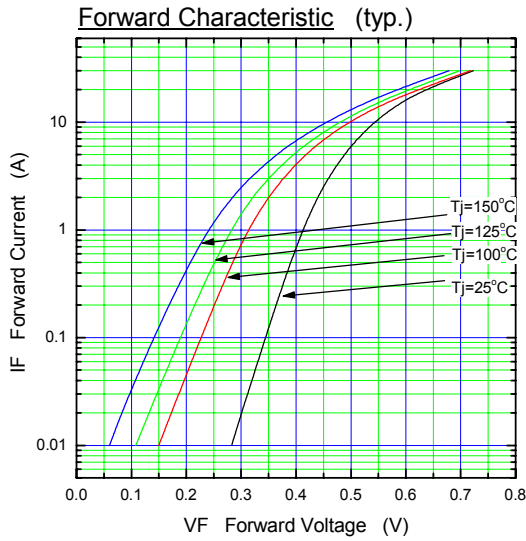
| Item | Symbol | Conditions | Max. | Unit |
|--------------------|---------------|------------------|------|---------------|
| Forward voltage ** | V_F | $I_F=15A$ | 0.63 | V |
| Reverse current ** | I_R | $V_R=40V$ | 200 | μA |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 1.25 | $^{\circ}C/W$ |

**Rating per element

- Mechanical characteristics

| | | | |
|------------------|--------------------|------------|-----|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N·m |
| Approximate mass | | 2 | g |

Characteristics



λ : Conduction angle of forward current for each rectifier element
 I_o : Output current of center-tap full wave connection

