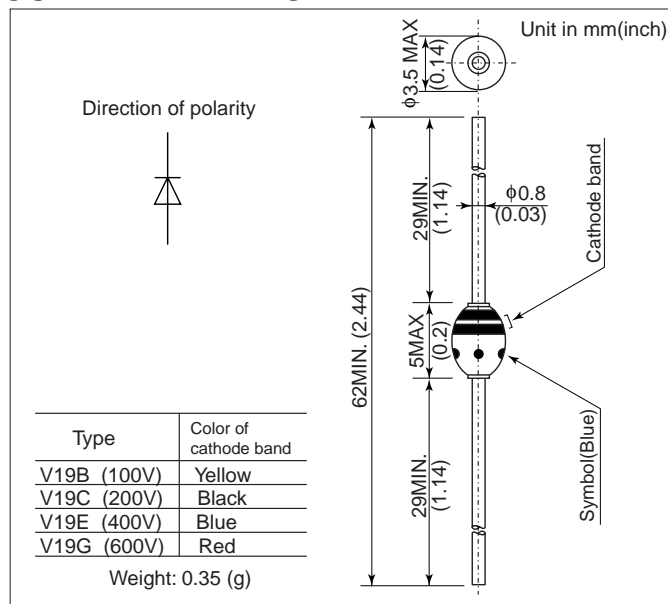


V19

FEATURES

- For high speed switching.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

| Items | Type | | V19B | V19C | V19E | V19G |
|---------------------------------------|------------------|------------------|--|------|------|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | V | 100 | 200 | 400 | 600 |
| Non-Repetitive Peak Reverse Voltage | V_{RSM} | V | 200 | 300 | 500 | 800 |
| Average Forward Current | $I_{F(AV)}$ | A | 1.0 (Single-phase half sine wave 180° conduction TL = 80°C, Lead length = 10mm) | | | |
| Surge(Non-Repetitive) Forward Current | I_{FSM} | A | 30(Without PIV, 10ms conduction, Tj = 150°C start) | | | |
| I ² t Limit Value | I ² t | A ² s | 3.6(Time = 2 ~ 10ms, I = RMS value) | | | |
| Operating Junction Temperature | T _j | °C | -65 ~ +150 | | | |
| Storage Temperature | T _{stg} | °C | -65 ~ +150 | | | |

Notes (1) Lead mounting : Lead temperature 300°C max. to 3.2mm from body for 5sec. max..

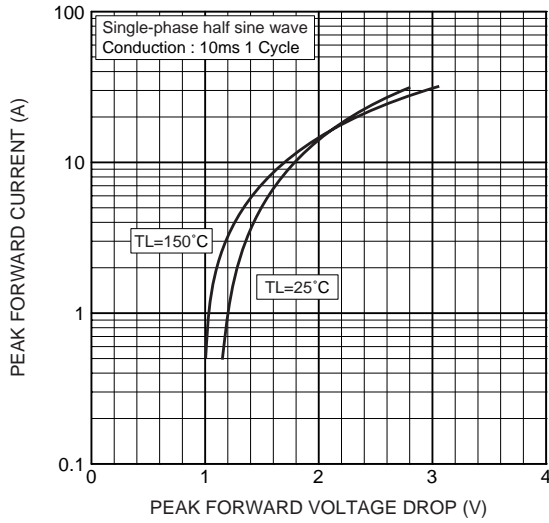
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

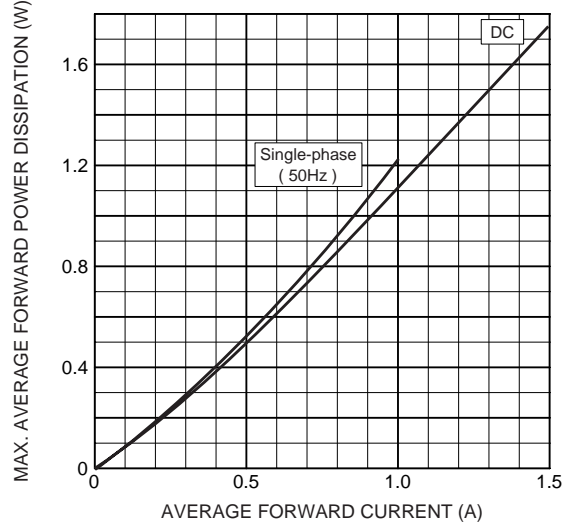
| Items | Symbols | Units | Min. | Typ. | Max. | Test Conditions |
|--------------------------------|---------------|-------|------|------|------|--|
| Peak Reverse Current | I_{RRM} | μA | — | 2.0 | 10 | Rated V_{RRM} |
| Peak Forward Voltage | V_{FM} | V | — | — | 1.2 | $I_{FM}=1.0$ Ap, Single-phase half sine wave 1 cycle |
| Reverse Recovery Time | trr | μs | — | — | 0.2 | $I_F=2$ mA, $V_R=-15$ V |
| Steady State Thermal Impedance | $R_{th(j-a)}$ | °C/W | — | — | 80 | Lead length = 10 mm |
| | $R_{th(j-l)}$ | | | | 50 | |

V19

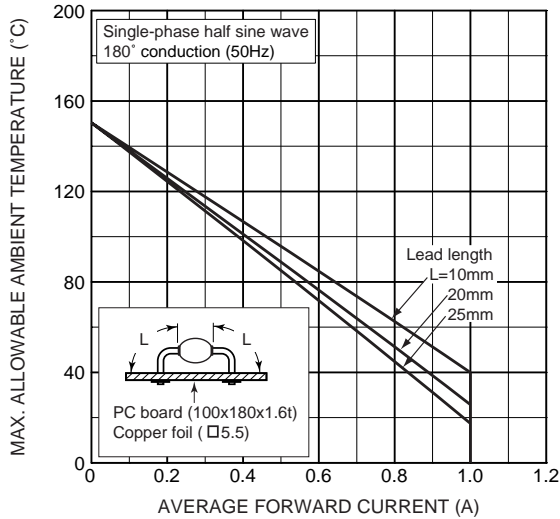
Forward characteristics



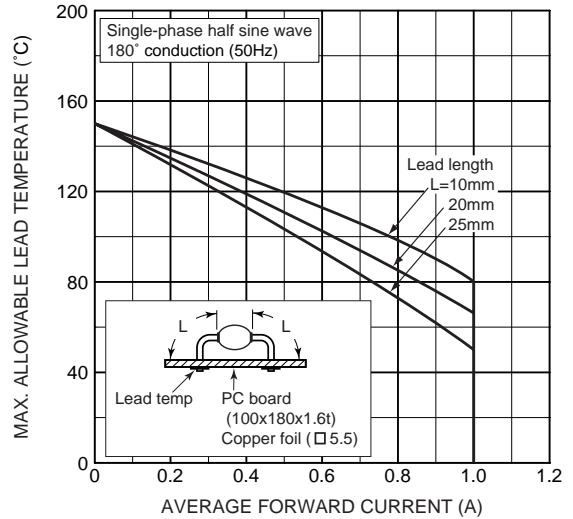
Max. average forward power dissipation (Resistive or inductive load)



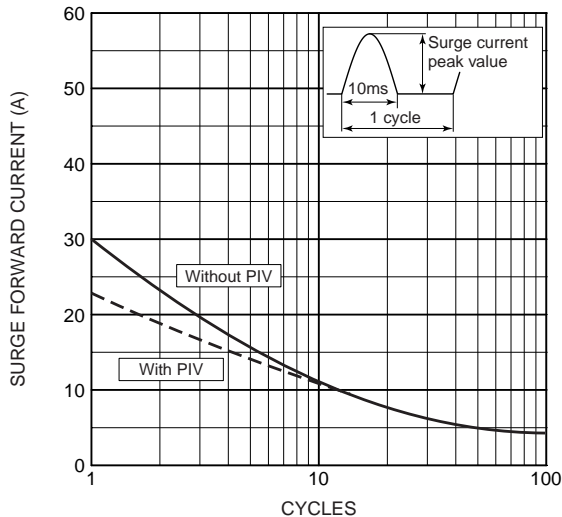
Max. allowable ambient temperature (Resistive or inductive load)



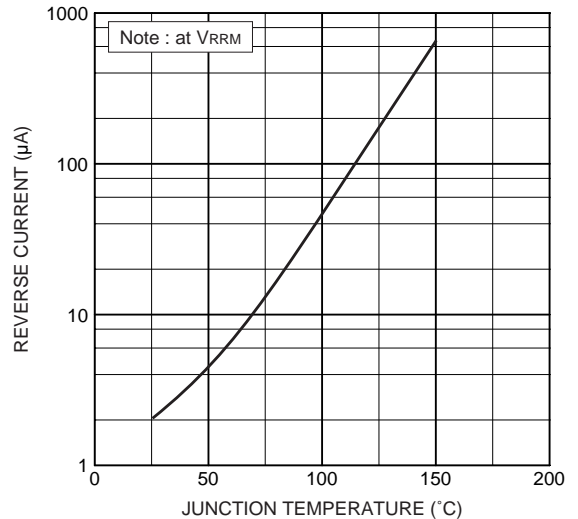
Max. allowable lead temperature (Resistive or inductive load)



Surge forward current characteristic (Non-repetitive)

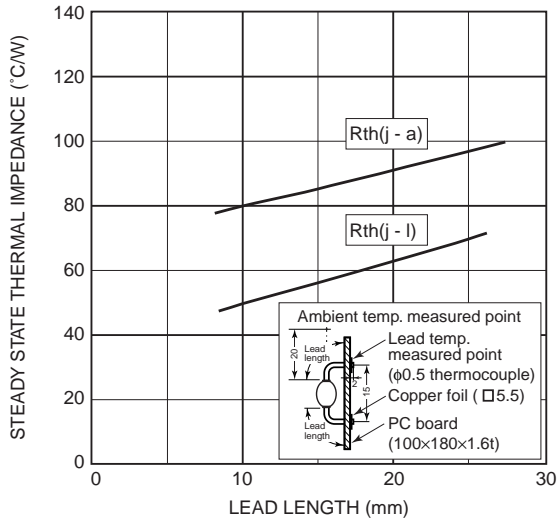


Typ. reverse current vs. junction temperature

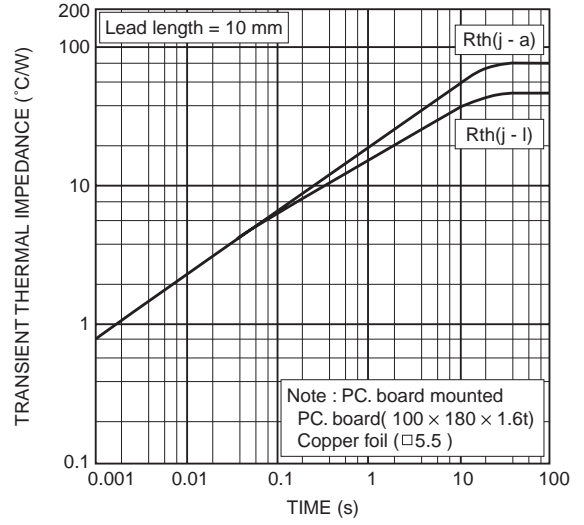


V19

Steady state thermal impedance



Transient thermal impedance



Reverse recovery time(t_{rr}) test circuit

