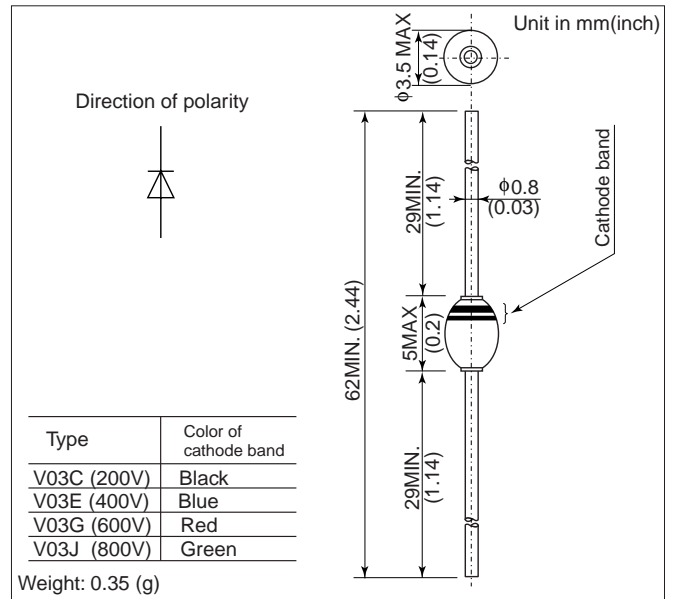


V03

FEATURES

- For general purpose.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

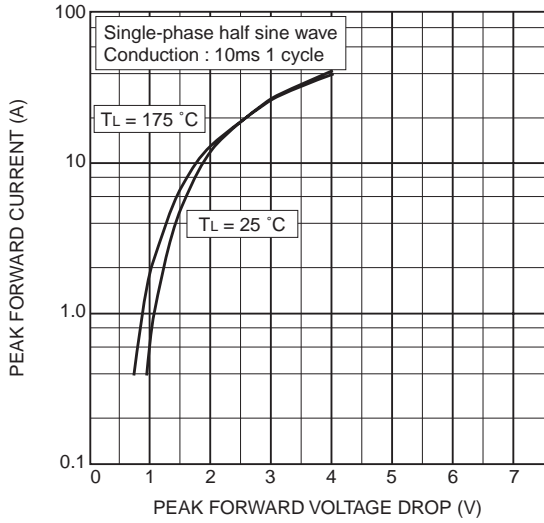
Item	Type	V03C	V03E	V03G	V03J	
Repetitive Peak Reverse Voltage	V_{RRM}	V	200	400	600	800
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	300	500	800	1000
Average Forward Current	$I_{F(AV)}$	A	1.3 (Single-phase half sine wave 180° conduction) ($T_L = 90^\circ\text{C}$, Lead length = 10mm)			
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	40 (Without PIV, 10ms conduction, $T_j = 175^\circ\text{C}$ start)			
I^2t Limit Value	I^2t	A^2s	6.4 (Time = 2 ~ 10ms, I = RMS value)			
Operating Junction Temperature	T_j	$^\circ\text{C}$	-65 ~ +175			
Storage Temperature	T_{stg}	$^\circ\text{C}$	-65 ~ +200			

- Notes (1) Lead mounting : Lead temperature 300°C max. to 3.2mm from body for 5sec. max..
 (2) Mechanical strength : Bending $90^\circ \times 2$ cycles or $180^\circ \times 1$ cycle, Tensile 2kg, Twist $90^\circ \times 1$ cycle.

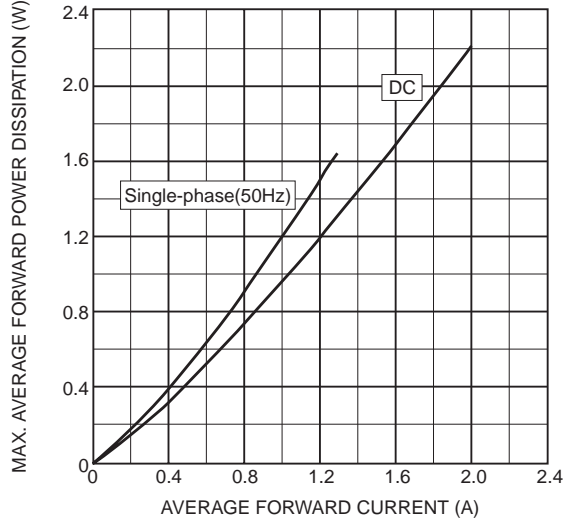
CHARACTERISTICS($T_L = 25^\circ\text{C}$)

Item	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	-	1.5	20	C class
				0.6	10	E,G,J class
Peak Forward Voltage	V_{FM}	V	-	-	1.1	$I_{FM} = 1.3A_p$, Single-phase half sine wave 1 cycle
Reverse Recovery Time	t_{rr}	μs	-	3.0	-	$I_F = 2\text{mA}$, $V_R = -15\text{V}$
Steady State Thermal Impedance	$R_{th(j-a)}$	$^\circ\text{C/W}$	-	-	80	Lead length = 10 mm
	$R_{th(j-l)}$				50	

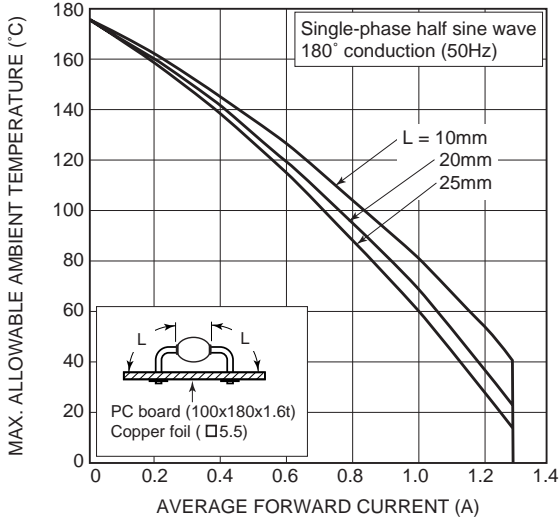
Forward characteristic



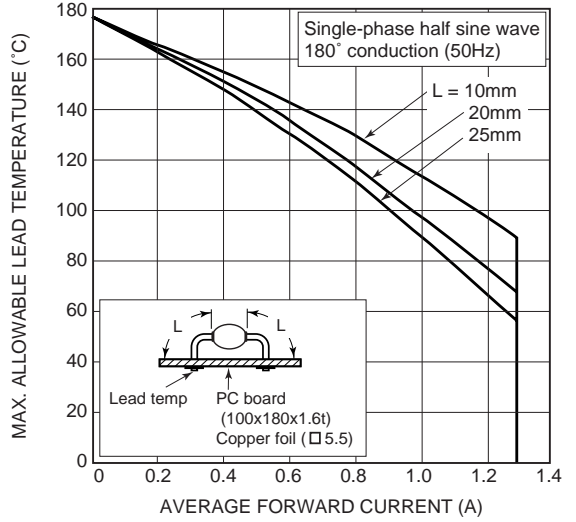
Max. average forward power dissipation (Resistive or inductive load)



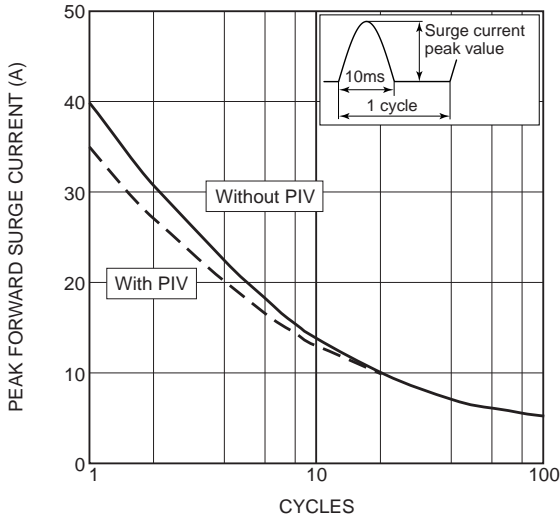
Max. allowable ambient temperature (Resistive or inductive load)



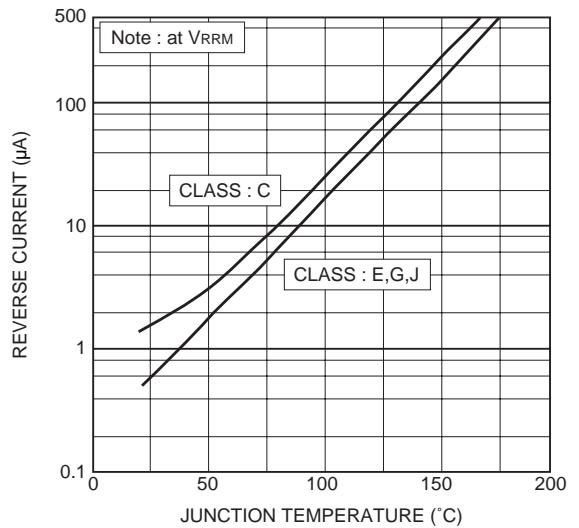
Max. allowable lead temperature (Resistive or inductive load)



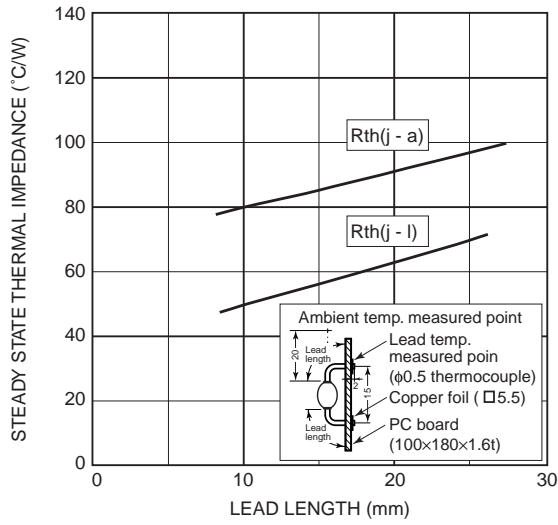
Surge forward current characteristic (Non-repetitive)



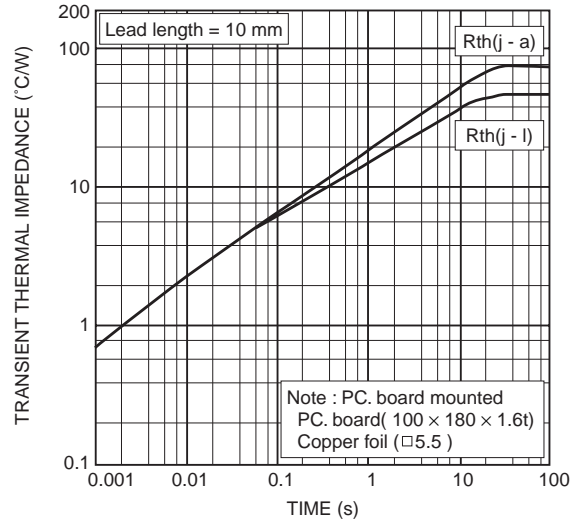
Typ. reverse current vs. junction temperature



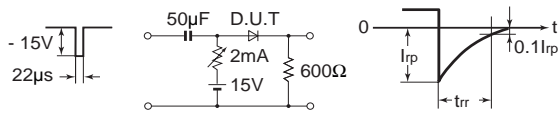
Steady state thermal impedance



Transient thermal impedance



Reverse recovery time(t_{rr}) test circuit



HITACHI POWER SEMICONDUCTORS

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