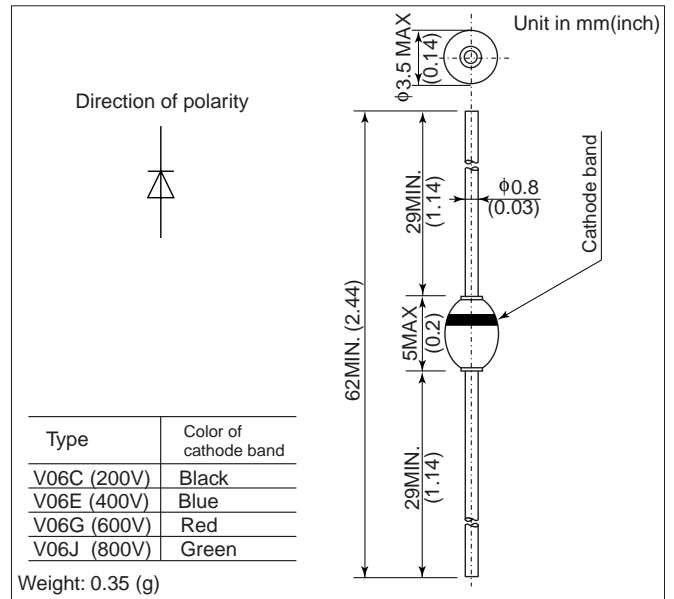


# V06

## FEATURES

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

## OUTLINE DRAWING



## ABSOLUTE MAXIMUM RATINGS

Item	Type	V06C	V06E	V06G	V06J	
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	1.1 (Single-phase half sine wave 180° conduction) ( $T_L = 90^\circ\text{C}$ , Lead length = 10mm)			
Surge(Non-Repetitive) Forward Current	$I_{FSM}$	A	35 ( Without PIV, 10ms conduction, $T_j = 175^\circ\text{C}$ start )			
$I^2t$ Limit Value	$I^2t$	$A^2s$	4.9 ( 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			

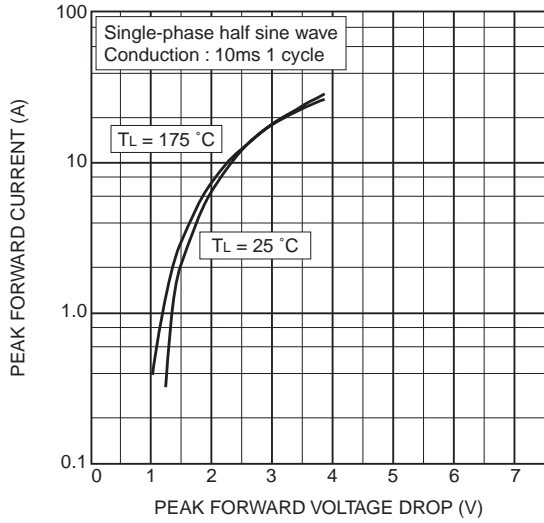
- Notes (1) Lead Mounting : Lead Temperature 300°C max. to 3.2mm from body for 5sec. Max..  
 (2) Mechanical Strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

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

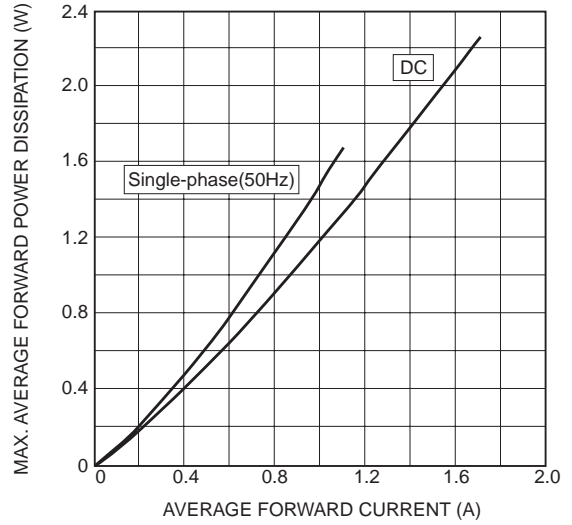
Item	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	$I_{RRM}$	$\mu\text{A}$	-	1.5	20	C class
				0.6	10	E,G,J class
Peak Forward Voltage	$V_{FM}$	V	-	-	1.4	$I_{FM} = 1.1A_p$ , Single-phase half sine wave 1 cycle
Reverse Recovery Time	$t_{rr}$	$\mu\text{s}$	-	3.0	-	$I_F = 2\text{mA}$ , $V_R = -15\text{V}$
Steady State Thermal Impedance	$R_{th(j-a)}$	$^\circ\text{C/W}$	-	-	80	Lead length = 10 mm
	$R_{th(j-l)}$				50	

# V06

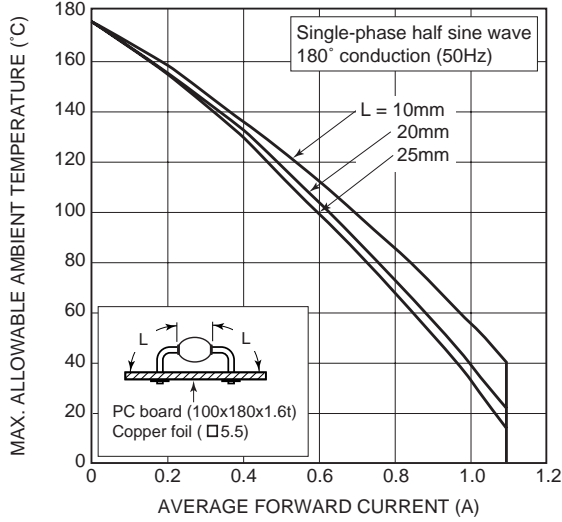
Forward characteristic



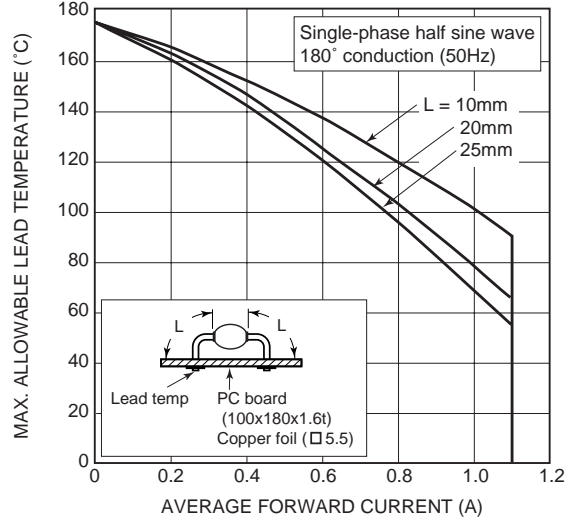
Max. average forward power dissipation (Resistive or inductive load)



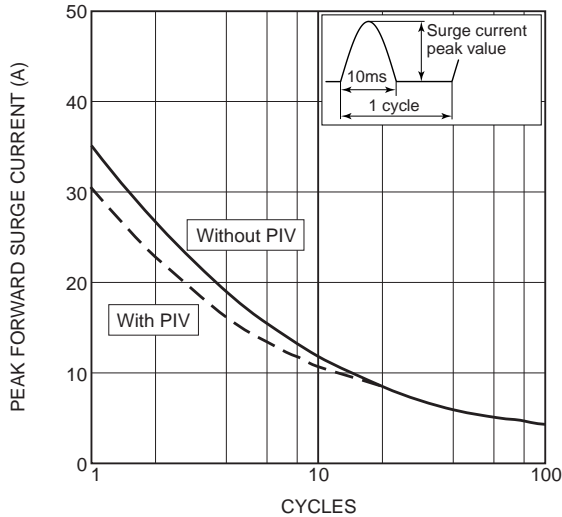
Max. allowable ambient temperature (Resistive or inductive load)



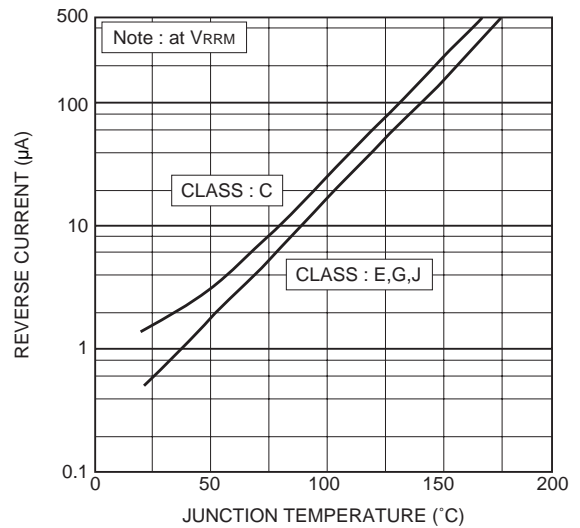
Max. allowable lead temperature (Resistive or inductive load)



Surge forward current characteristic (Non-repetitive)

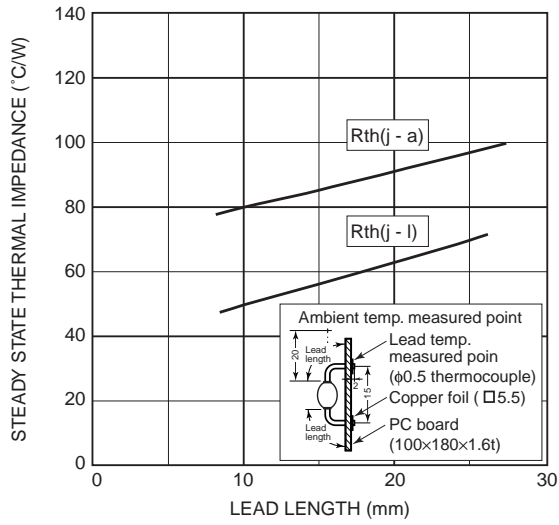


Typ. reverse current vs. junction temperature

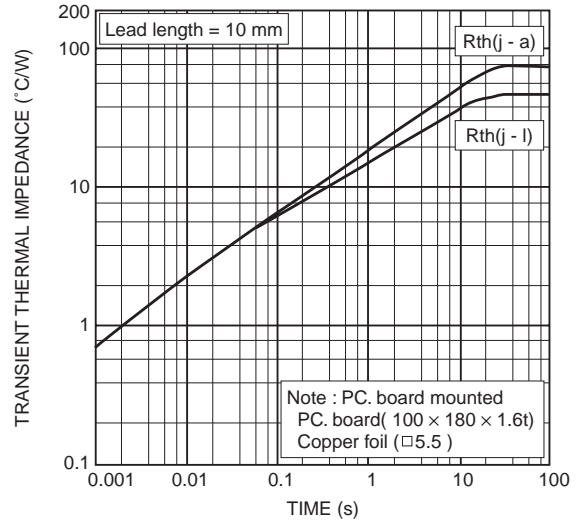


# V06

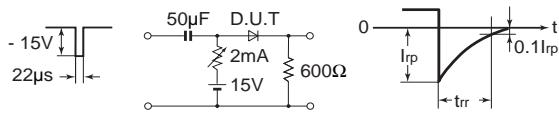
## Steady state thermal impedance



## Transient thermal impedance



## Reverse recovery time( $t_{rr}$ ) test circuit



# HITACHI POWER SEMICONDUCTORS

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