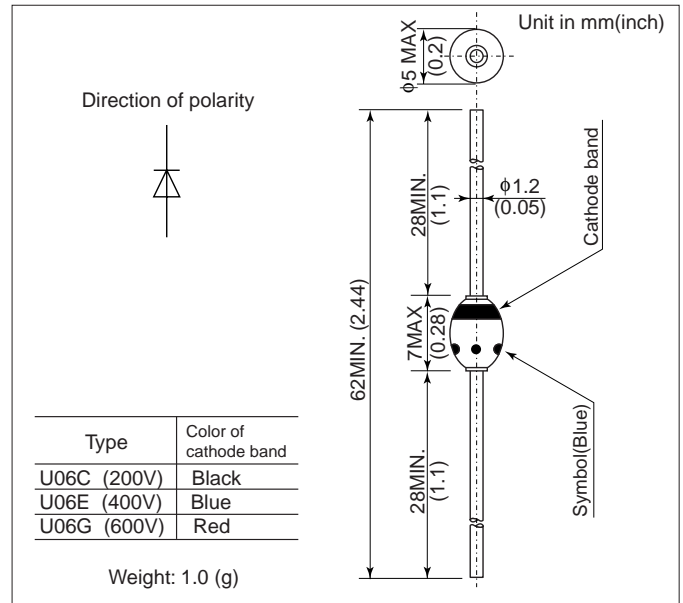


# U06

## FEATURES

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

## OUTLINE DRAWING



## ABSOLUTE MAXIMUM RATINGS

Items	Type		U06C	U06E	U06G
Repetitive Peak Reverse Voltage	$V_{RRM}$	V	200	400	600
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	V	300	500	800
Average Forward Current	$I_{F(AV)}$	A	2.0 (Single-phase half sine wave 180° conduction TL = 75°C, Lead length = 10mm)		
Surge(Non-Repetitive) Forward Current	$I_{FSM}$	A	80 (Without PIV, 10ms conduction, Tj = 150°C start)		
I <sup>2</sup> t Limit Value	I <sup>2</sup> t	A <sup>2</sup> s	25.6 (Time = 2 ~ 10ms, I = RMS value)		
Operating Junction Temperature	T <sub>j</sub>	°C	-65 ~ +150		
Storage Temperature	T <sub>stg</sub>	°C	-65 ~ +200		

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

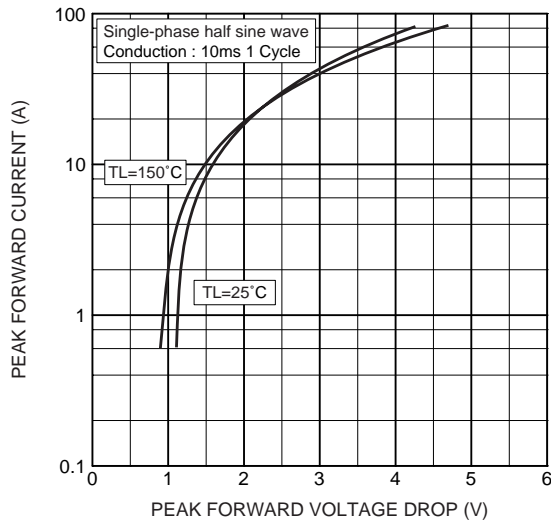
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 3kg, Twist 90°×1 cycle.

## CHARACTERISTICS(T<sub>L</sub>=25°C)

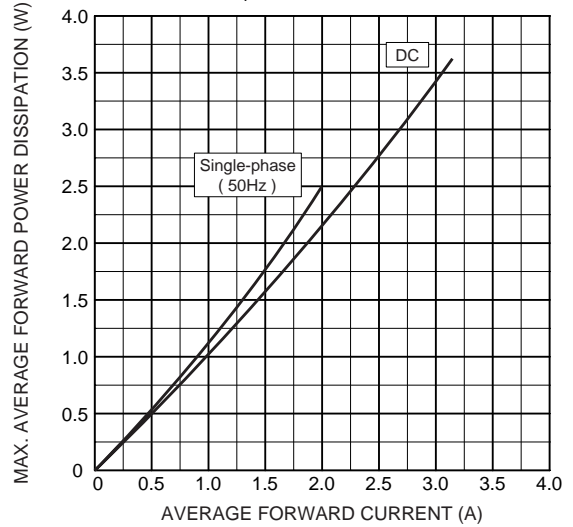
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	$I_{RRM}$	μA	-	4.0	60	C class
				2.0	10	E,G class
Peak Forward Voltage	$V_{FM}$	V	-	-	1.2	I <sub>FM</sub> =2.0 Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	trr	μs	-	-	0.4	I <sub>F</sub> =2mA, V <sub>R</sub> =-15V
Steady State Thermal Impedance	R <sub>th(j-a)</sub>	°C/W	-	-	60	Lead length = 10 mm
	R <sub>th(j-l)</sub>				30	

# U06

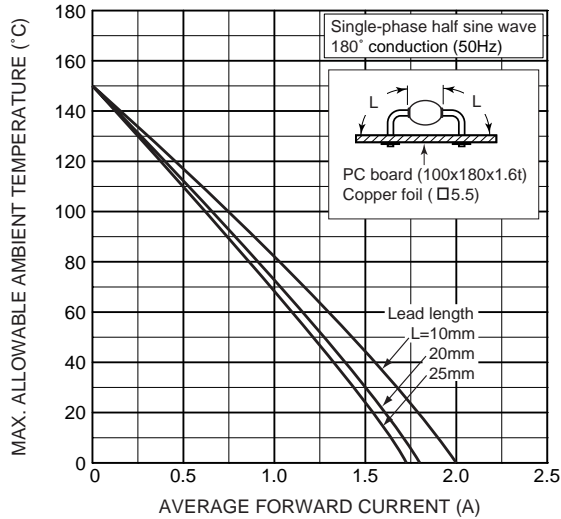
Forward characteristics



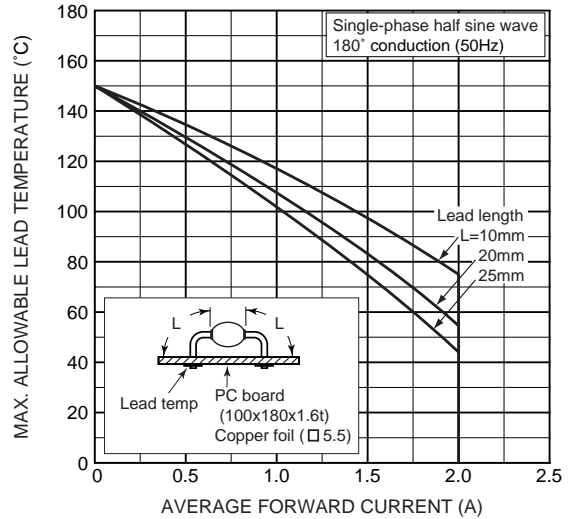
Max. average forward power dissipation (Resistive or inductive load)



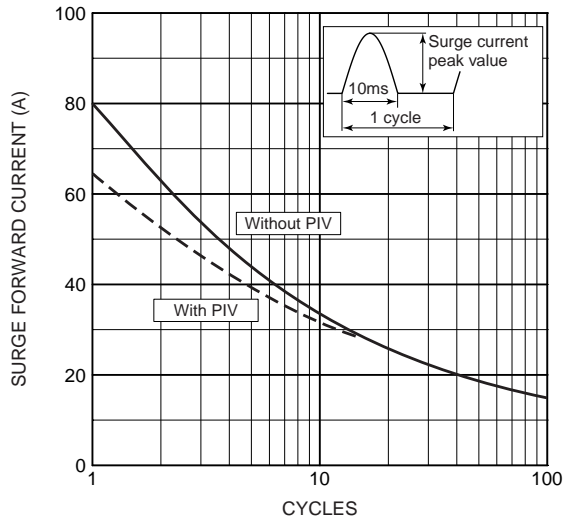
Max. allowable ambient temperature (Resistive or inductive load)



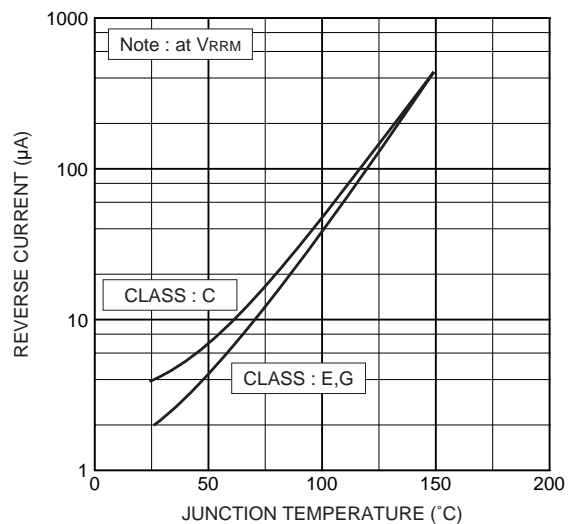
Max. allowable lead temperature (Resistive or inductive load)



Surge forward current characteristic (Non-repetitive)

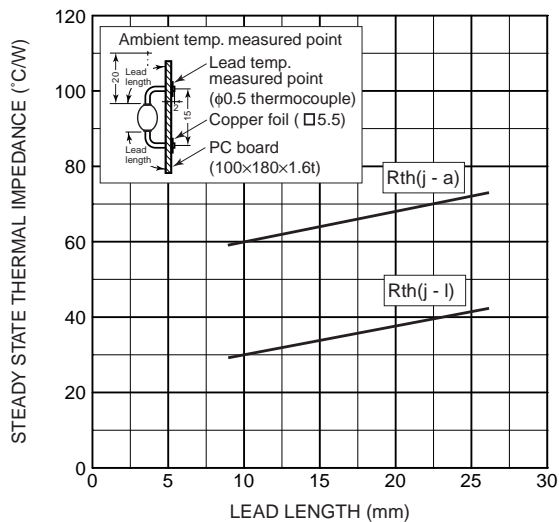


Typ. reverse current vs. junction temperature

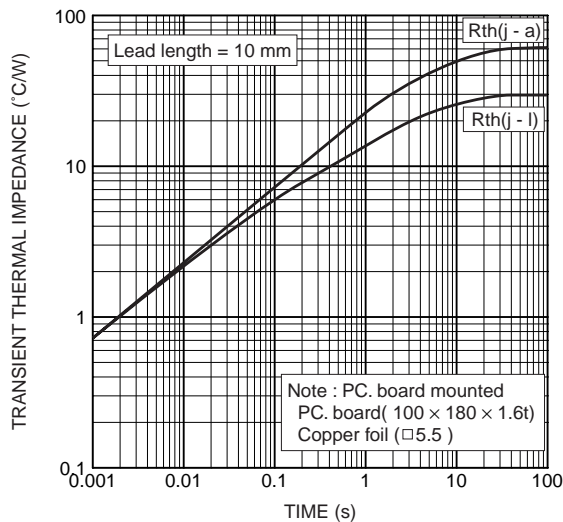


# U06

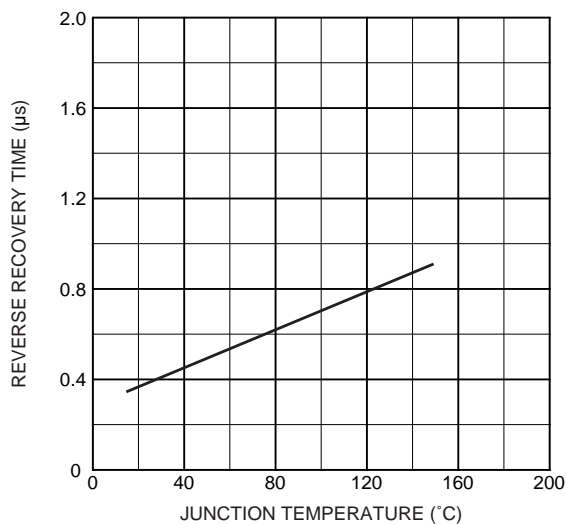
## Steady state thermal impedance



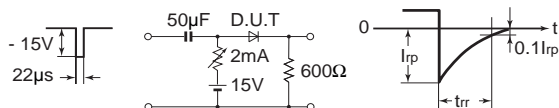
## Transient thermal impedance



## Typ. reverse recovery time vs. junction temperature



## Reverse recovery time(trr) test circuit



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