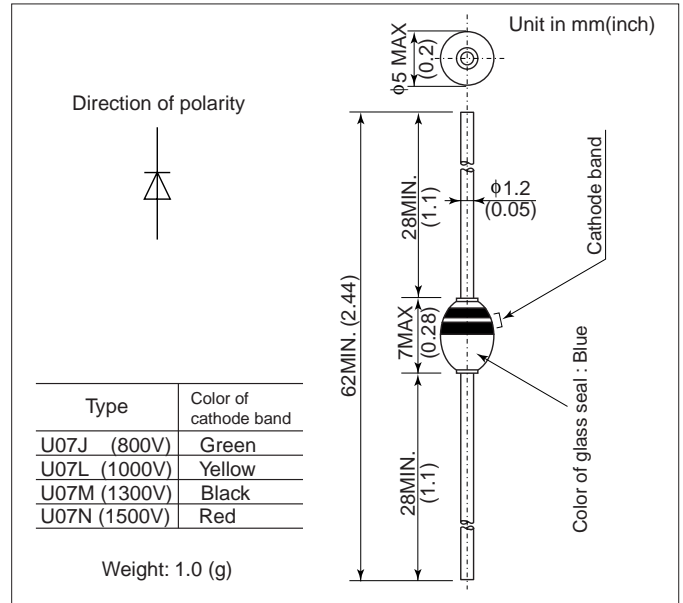


U07

FEATURES

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

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type		U07J	U07L	U07M	U07N
Repetitive Peak Reverse Voltage	V_{RRM}	V	800	1000	1300	1500
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	1000	1300	1600	1800
Average Forward Current	$I_{F(AV)}$	A	1.0 (Single-phase half sine wave 180° conduction TL = 60°C, Lead length = 10mm)			
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	50 (Without PIV, 10ms conduction, Tj = 140°C start)			
I ² t Limit Value	I ² t	A ² s	10 (Time = 2 ~ 10ms, I = RMS value)			
Operating Junction Temperature	T _j	°C	-65 ~ +140			
Storage Temperature	T _{stg}	°C	-65 ~ +200			

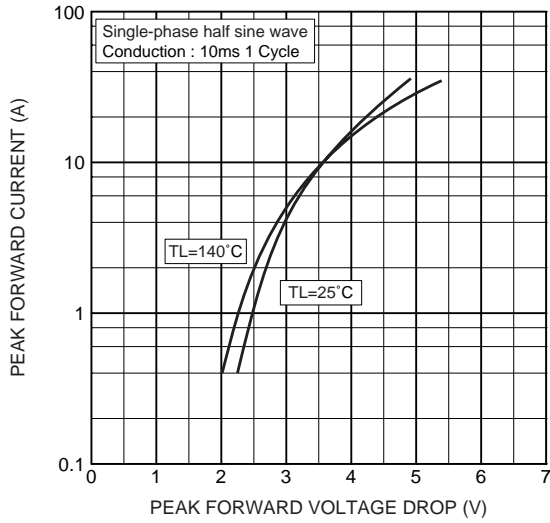
- Notes (1) Lead mounting : Lead temperature 300°C max. to 3.2mm from body for 5sec. max..
 (2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 3kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

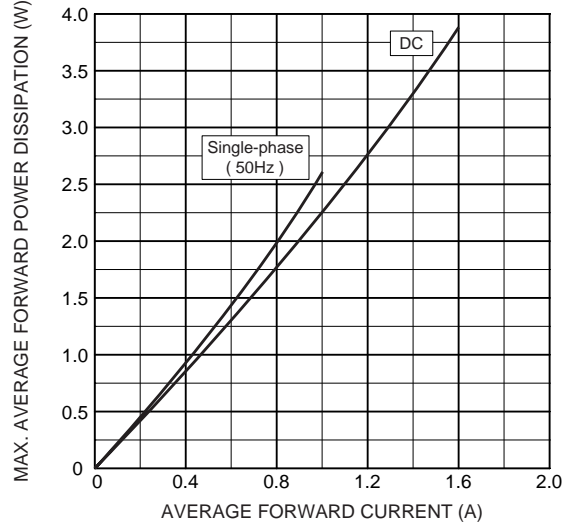
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	2.0	10	Rated V_{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	2.5	$I_{FM}=1.0$ Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	trr	μs	—	—	0.4	$I_F=2$ mA, $V_R=-15$ V
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	60	Lead length = 10 mm
	$R_{th(j-l)}$				30	

U07

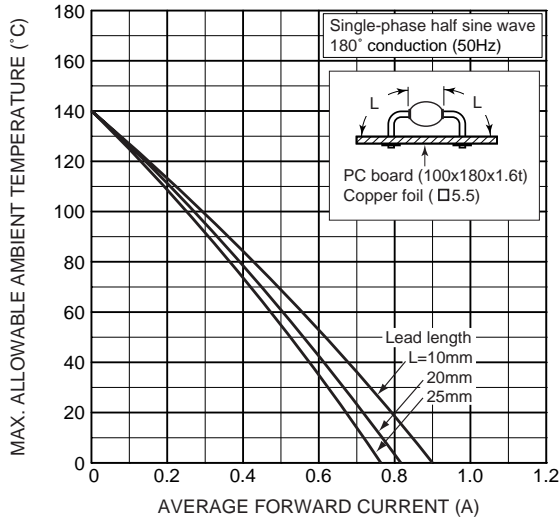
Forward characteristics



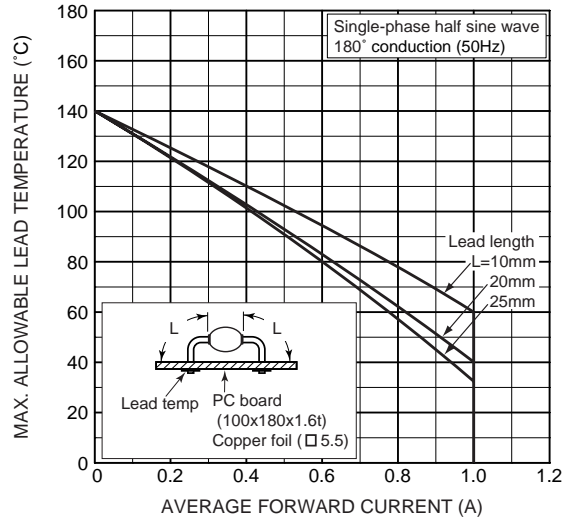
Max. average forward power dissipation (Resistive or inductive load)



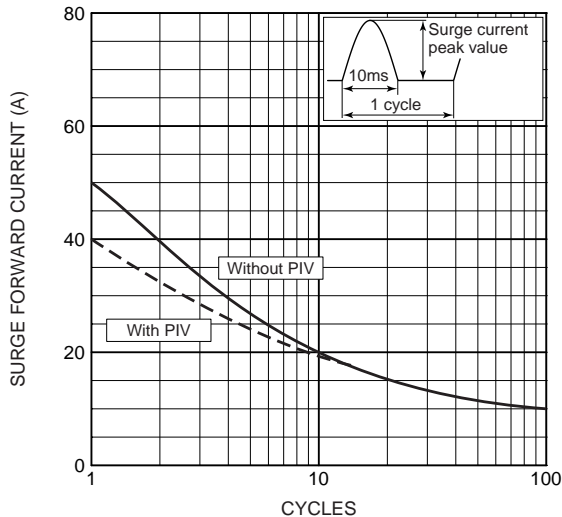
Max. allowable ambient temperature (Resistive or inductive load)



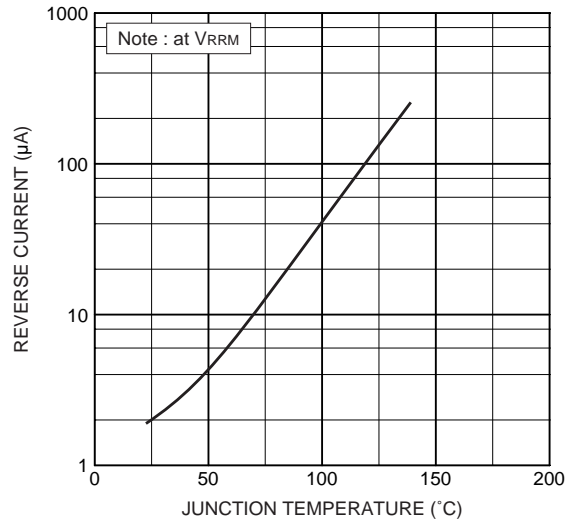
Max. allowable lead temperature (Resistive or inductive load)



Surge forward current characteristic (Non-repetitive)

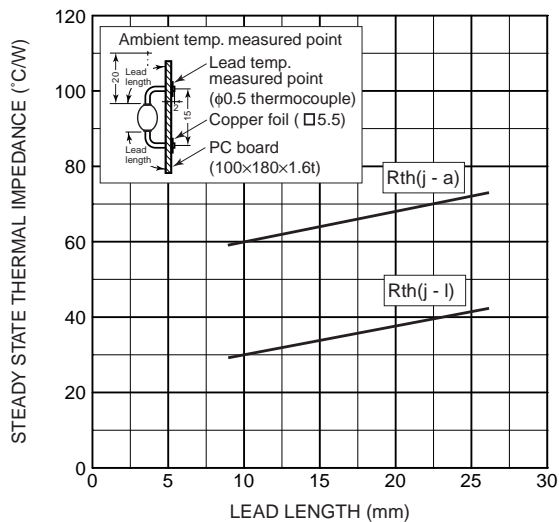


Typ. reverse current vs. junction temperature

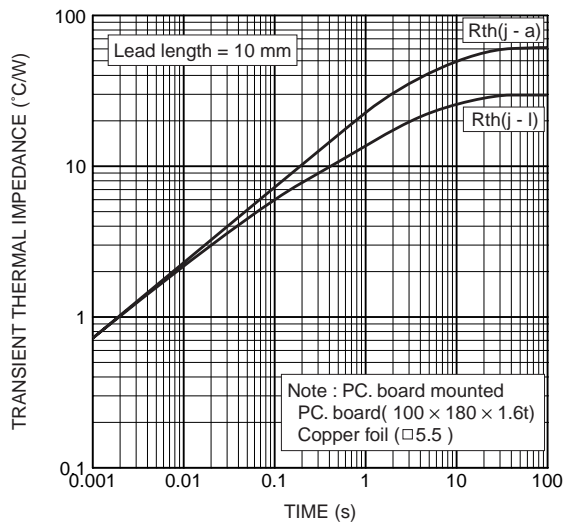


U07

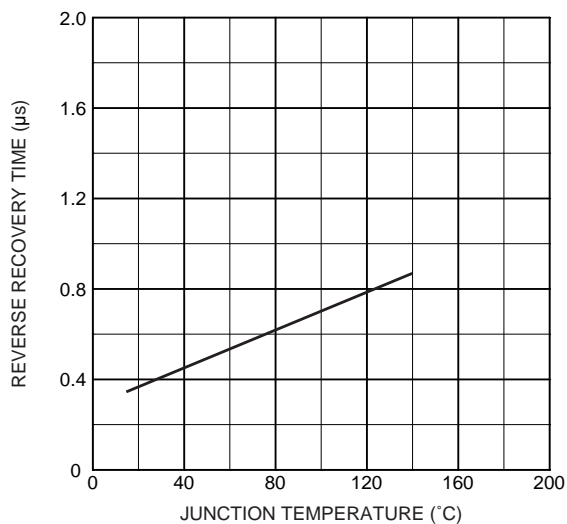
Steady state thermal impedance



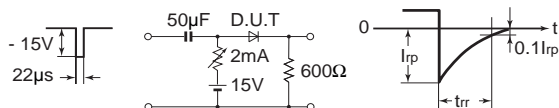
Transient thermal impedance



Typ. reverse recovery time vs. junction temperature



Reverse recovery time(trr) test circuit



HITACHI POWER SEMICONDUCTORS

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