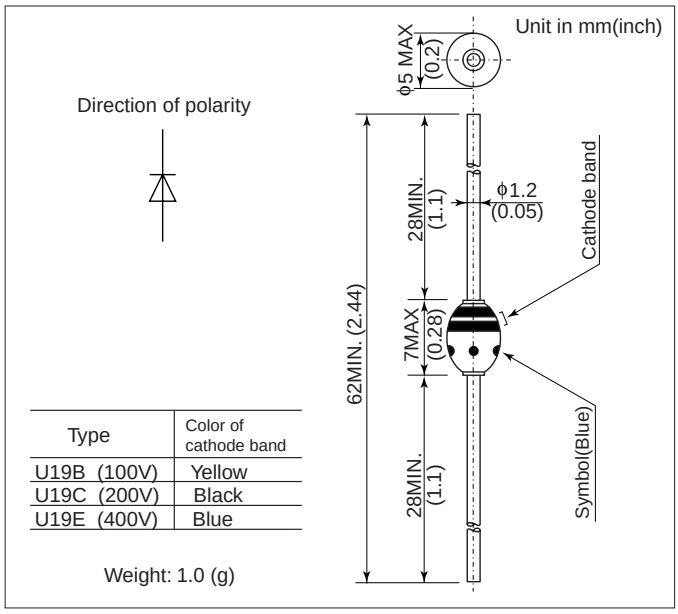
U19

FEATURES

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

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type		U19B	U19C	U19E
Repetitive Peak Reverse Voltage	V_{RRM}	V	100	200	400
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	200	300	500
Average Forward Current	$I_{F(AV)}$	A	2.5 (Single-phase half sine wave 180° conduction, TL = 80°C, Lead length = 10mm)		
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	80(Without PIV, 10ms conduction, Tj = 150°C start)		
I^2t Limit Value	I^2t	A^2s	25.6(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 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	All class, Rated V_{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	1.3	I_{FM}=2.5 Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	trr	μs	—	—	0.2	I_F=2mA, V_R=-15V
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	50	Lead length = 10 mm
	$R_{th(j-l)}$				20	

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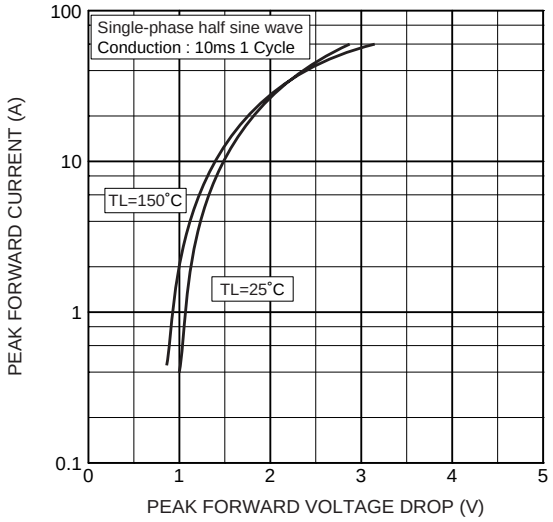
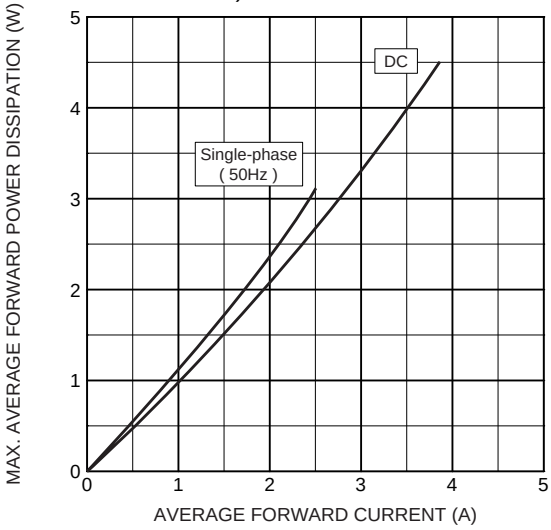
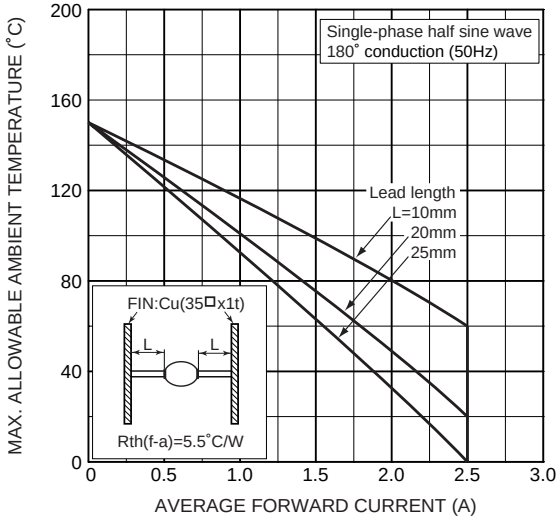
Forward characteristics



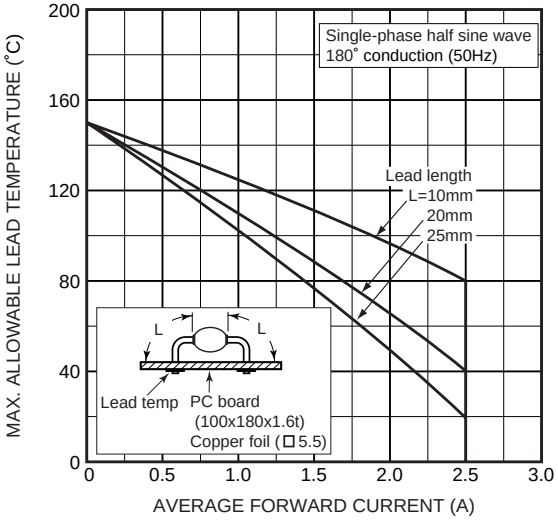
Max. average forward power dissipation
(Resistive or inductive load)



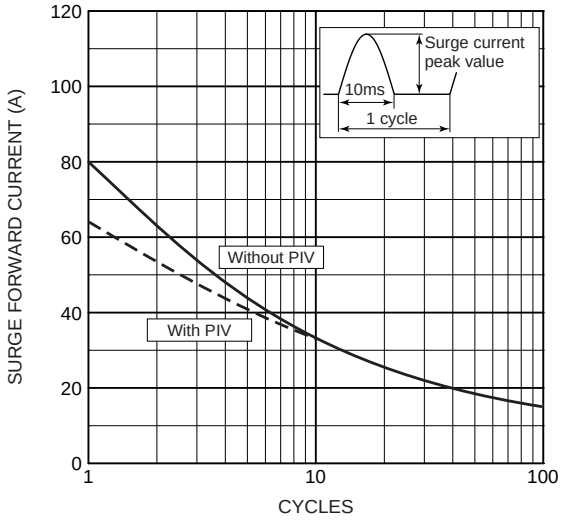
Max. allowable ambient temperature
(Resistive or inductive load)



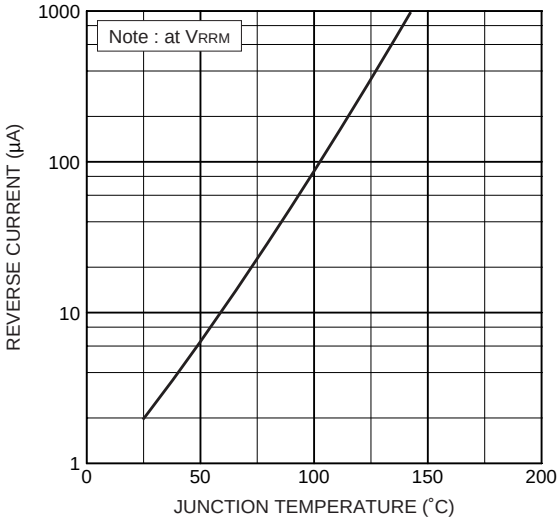
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Typ. reverse current vs. junction temperature



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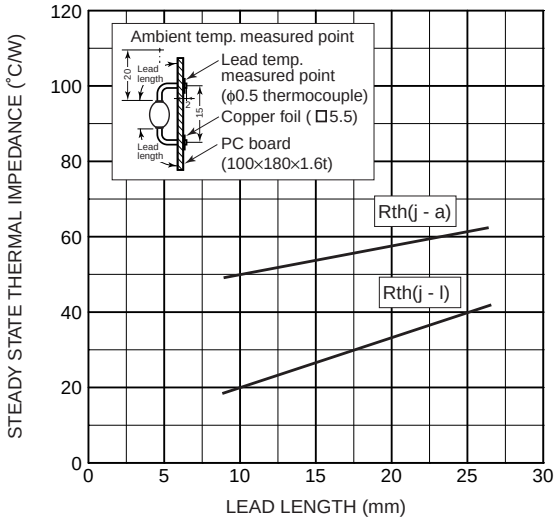
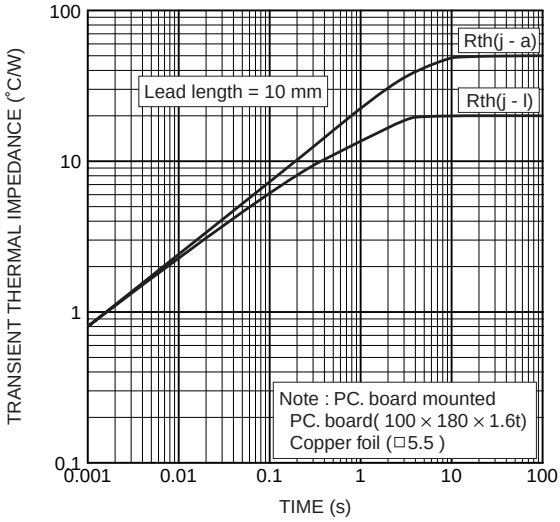
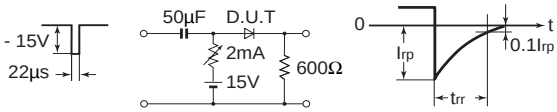
Steady state thermal impedance



Transient thermal impedance



Reverse recovery time(trr) test circuit



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