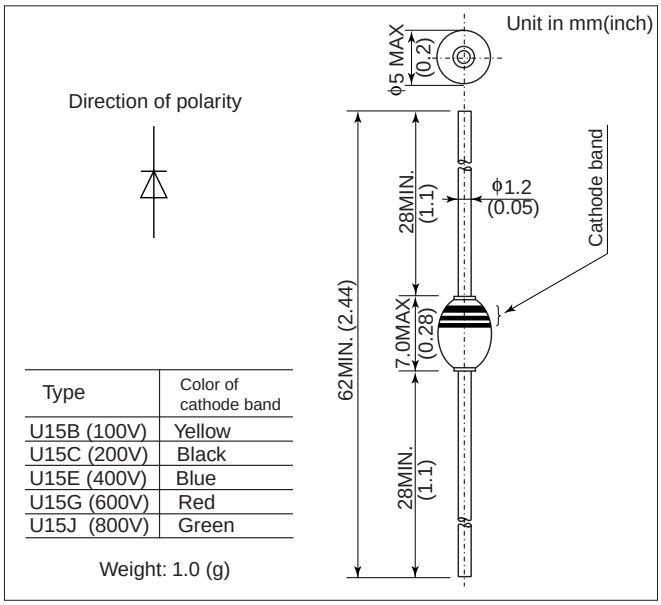
U15

FEATURES

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

OUTLINE DRAWING



Type	Color of cathode band
U15B (100V)	Yellow
U15C (200V)	Black
U15E (400V)	Blue
U15G (600V)	Red
U15J (800V)	Green

Weight: 1.0 (g)

ABSOLUTE MAXIMUM RATINGS

Item	Type		U15B	U15C	U15E	U15G	U15J
Repetitive Peak Reverse Voltage	V_{RRM}	V	100	200	400	600	800
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	200	300	500	800	1000
Average Forward Current	$I_{F(AV)}$	A	3.0 (Single-phase half sine wave 180° conduction, TL = 100°C, Lead length = 10mm)				
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	80			60	
			(Without PIV, 10ms conduction, Tj=175°C start)				
I^2t Limit Value	I^2t	A^2s	25.6			14.4	
			(Time=2~10ms,I=RMS value)				
Operating Junction Temperature	T_j	°C	-65 ~ +175				
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)

Item	Symbols	Units	Min.	Typ.	Max.	Test Conditions	
Peak Reverse Current	I_{RRM}	μA	—	1.5	60	B,C class	Rated V_{RRM}
				0.6	10	E,G,J class	
Peak Forward Voltage	V_{FM}	V	—	—	1.0	I_{FM}=3.0Ap, Single-phase half sine wave 1 cycle	
Reverse Recovery Time	trr	μs	—	3.0	—	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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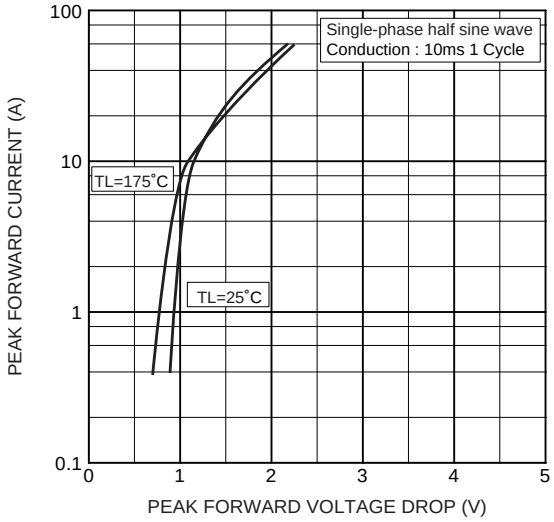
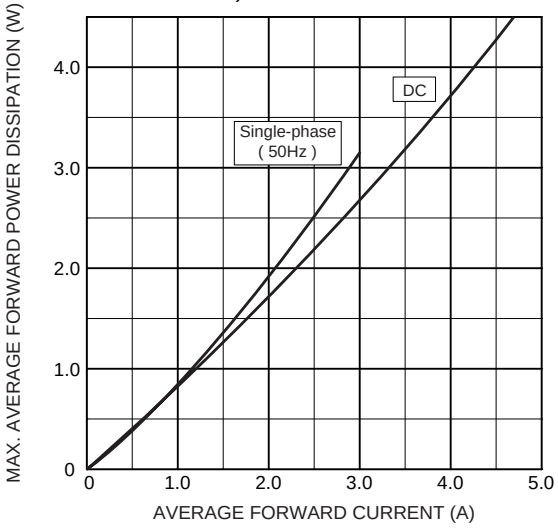
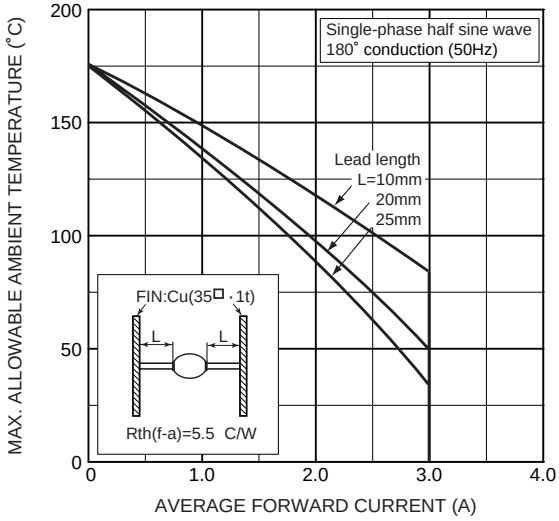
Forward characteristic



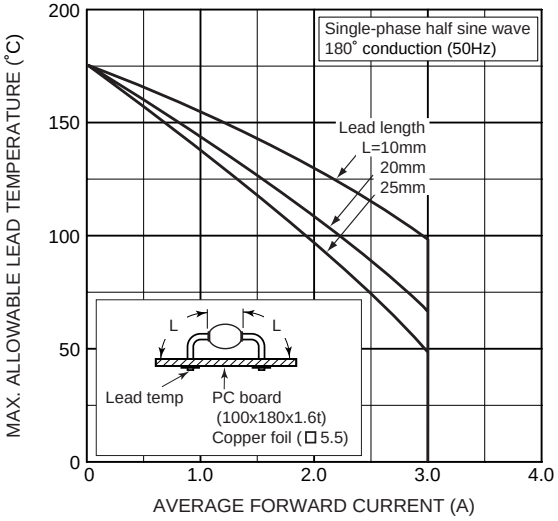
Max. average forward power dissipation
(Resistive or inductive load)



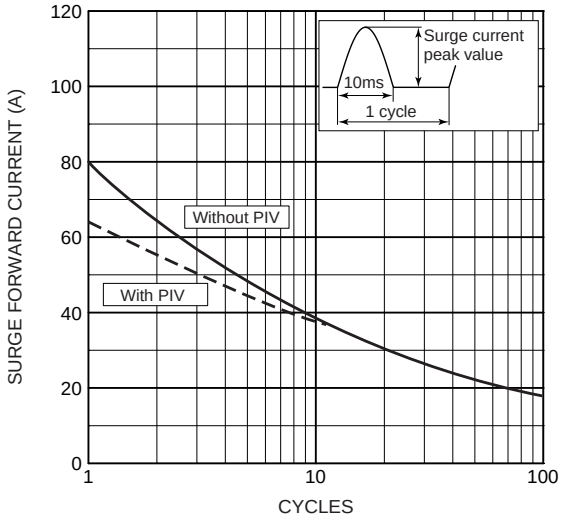
Max. allowable ambient temperature
(Resistive or inductive load)



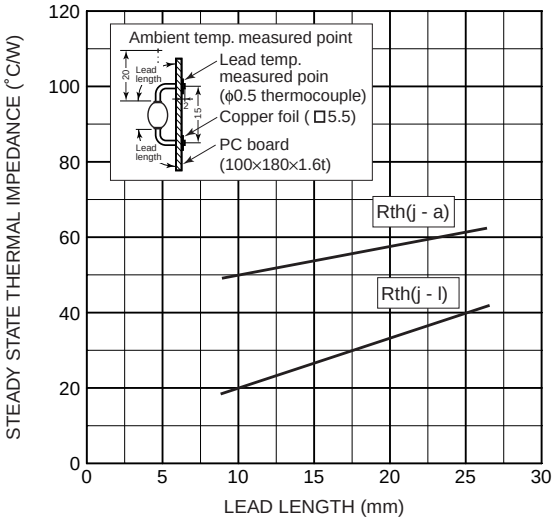
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Steady state thermal impedance



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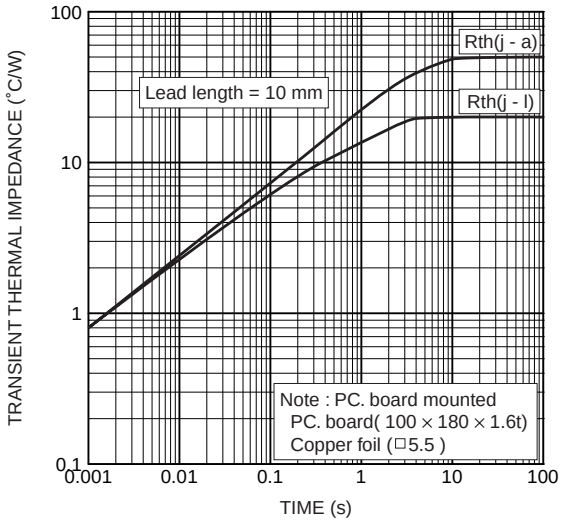
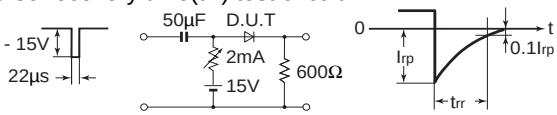
Transient thermal impedance



Reverse recovery time(trr) test circuit



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