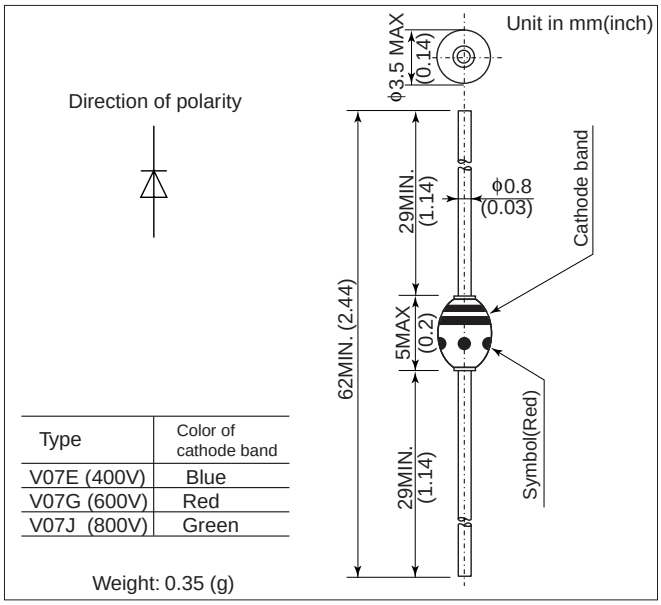
V07

FEATURES

- Transient surge voltage protection.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type		V07E	V07G	V07J
Repetitive Peak Reverse Voltage	V_{RRM}	V	400	600	800
Peak Reverse Power	P_{RM}	W	40(Tj = 165°C,Pulse duration 1ms Non-repetitive)		
Average Forward Current	$I_{F(AV)}$	A	1.3(Single-phase half sine wave 180° conduction T_L=90°C, Lead length = 10mm)		
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	40(Without PIV, 10ms conduction, Tj = 175°C start)		
I^2t Limit Value	I^2t	A^2s	6.4(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 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	0.6	10	All class, Rated V_{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	1.1	I_{FM}=1.3Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	trr	μs	—	3.0	—	I_F=2mA, V_R=-15V
Avalanche Voltage	V_{AVL}	V	V_{RRM}	—	1600	I_{RM}=1.0mA, Single-phase half sine wave 1 pps, Time ≤ 5s
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	80	Lead length = 10 mm
	$R_{th(j-l)}$				50	

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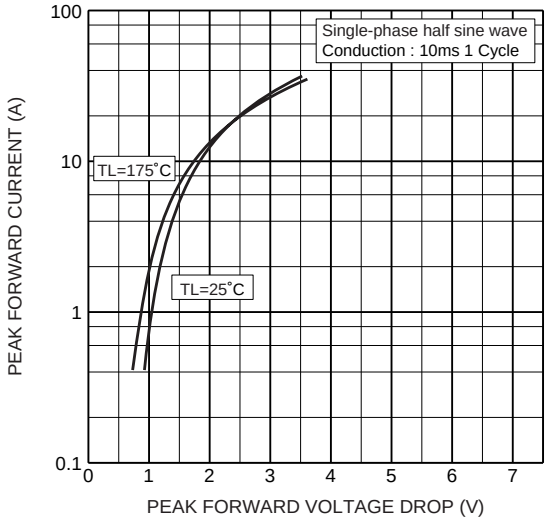
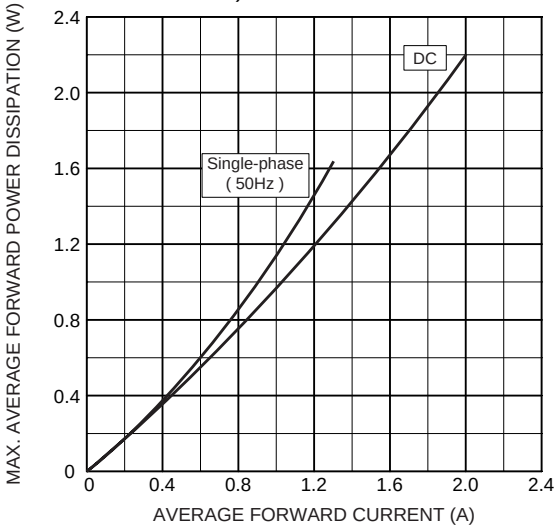
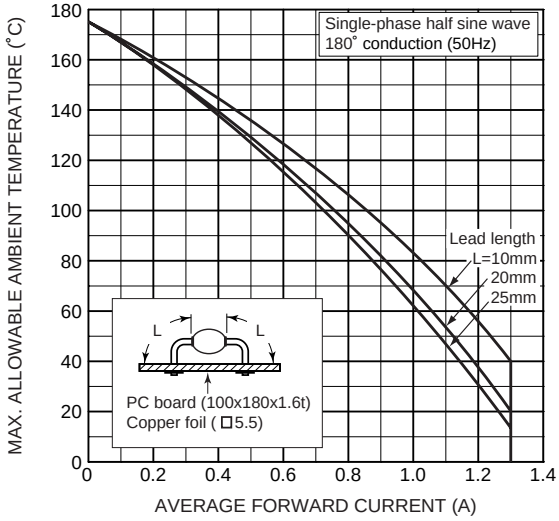
Forward characteristics



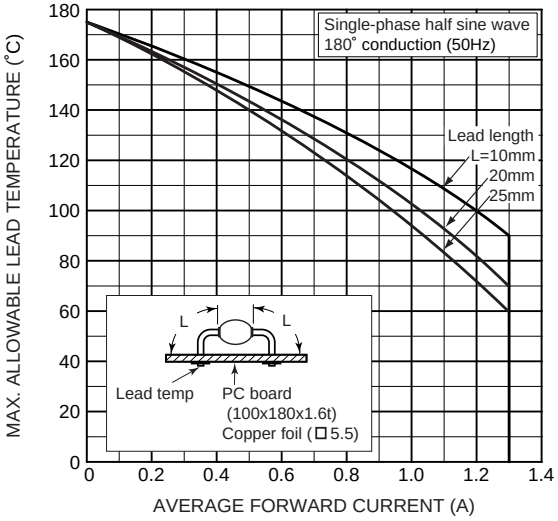
Max. average forward power dissipation
(Resistive or inductive load)



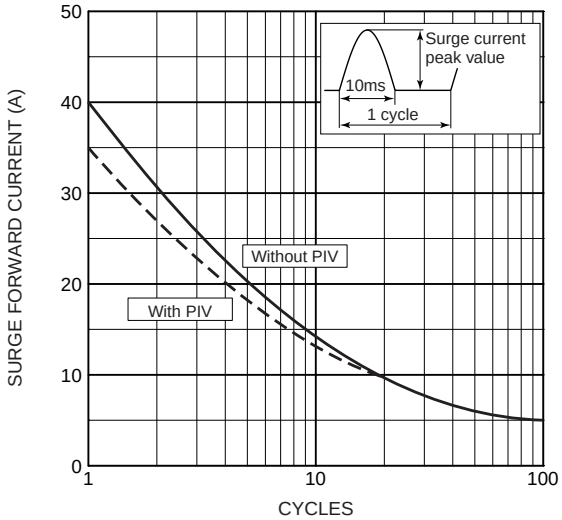
Max. allowable ambient temperature
(Resistive or inductive load)



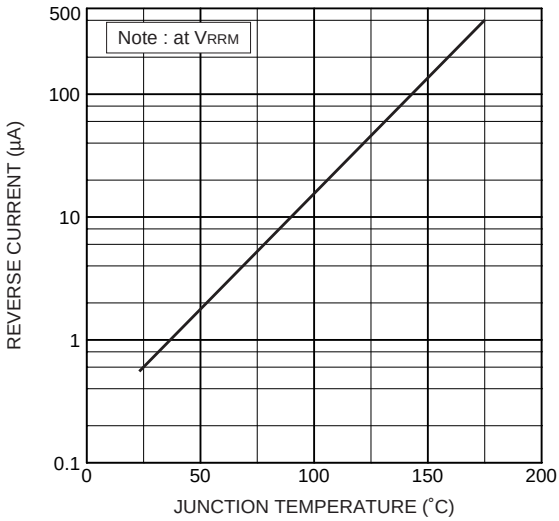
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Typ. Reverse current vs. junction temperature



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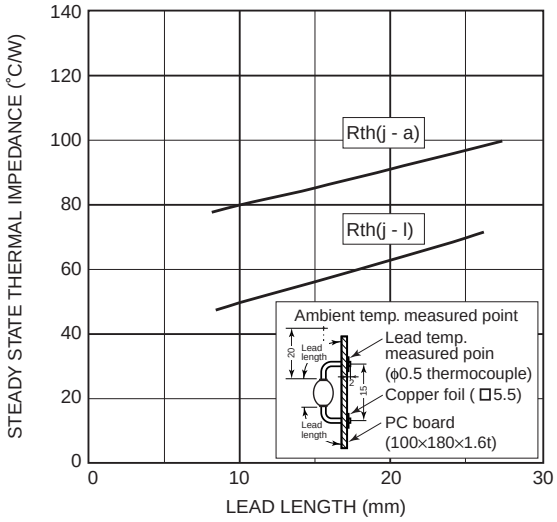
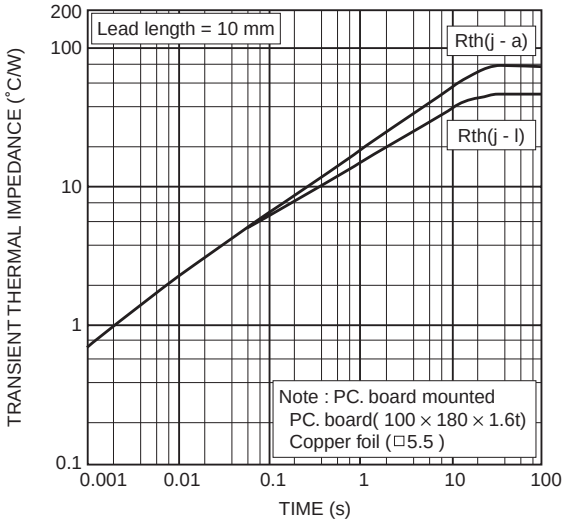
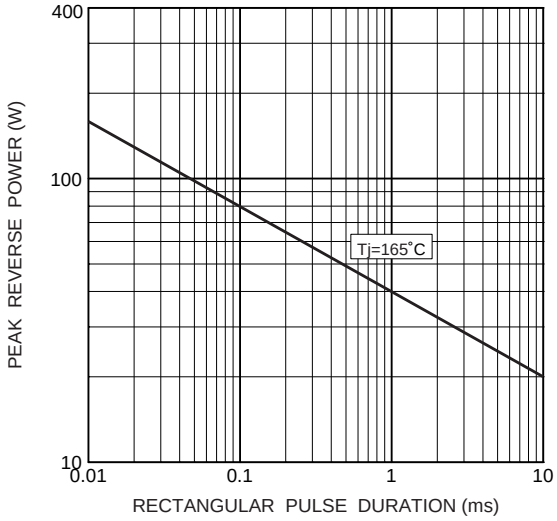
Steady-state thermal impedance



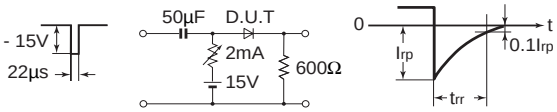
Transient thermal impedance



Typical reverse power characteristic
(Non-repetitive)



Reverse recovery time (trr) test circuit



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