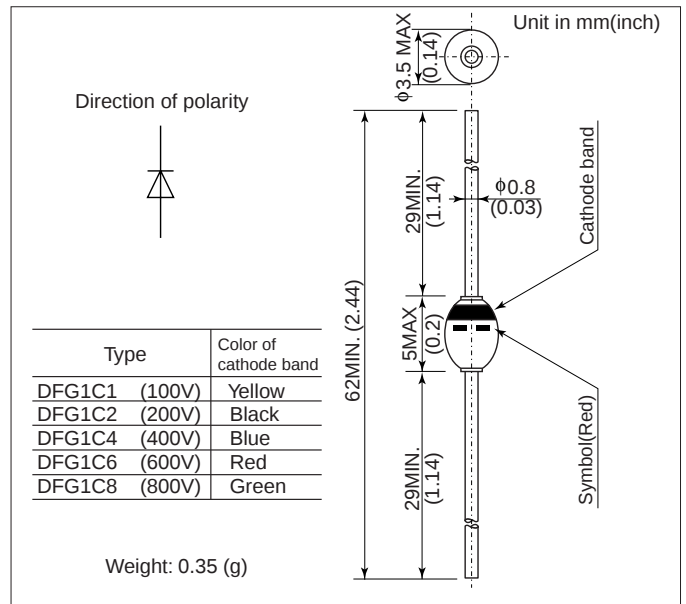


DFG1C

FEATURES

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

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type		DFG1C1	DFG1C2	DFG1C4	DFG1C6	DFG1C8
Repetitive Peak Reverse Voltage	V _{RRM}	V	100	200	400	600	800
Average Forward Current	I _{F(AV)}	A	1.0(TL=80°C)			1.0(TL=70°C)	
			(Single-phase half sine wave 180° conduction, Lead length = 10mm)				
Surge(Non-Repetitive) Forward Current	I _{FSM}	A	35			30	
			(Without PIV, 10ms conduction, T _j = 150°C start)				
I ² t Limit Value	I ² t	A ² s	4.9			3.6	
			(Time = 2 ~ 10ms, I = RMS value)				
Operating Junction Temperature	T _j	°C	-65 ~ +150				
Storage Temperature	T _{sta}	°C	-65 ~ +150				

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

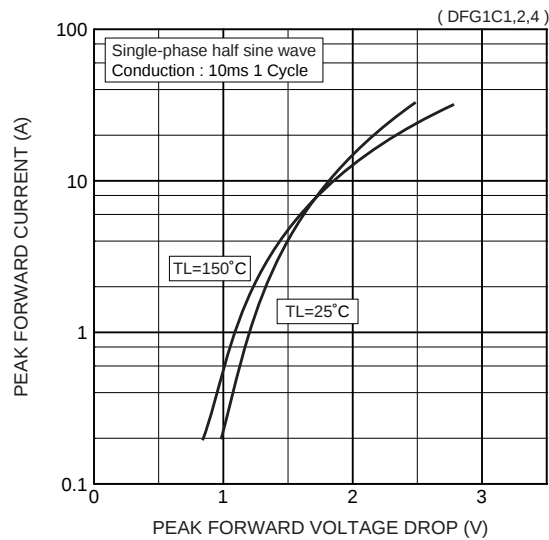
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

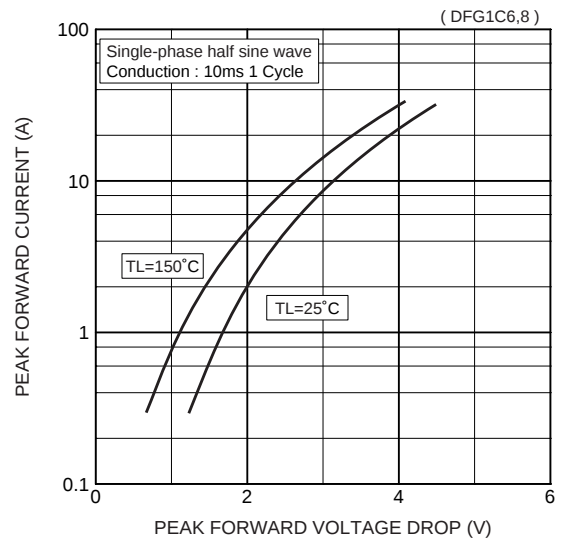
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	—	10	Rated V _{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	1.2	DFG1C1,2,4
			—	—	1.6	DFG1C6,8
Reverse Recovery Time	t _{rr}	μs	—	—	0.1	I _F =0.5A, I _{rp} =1.0A, 25% Recovery
Steady State Thermal Impedance	R _{th(j-a)}	°C/W	—	—	80	Lead length = 10 mm
	R _{th(j-l)}				50	

DFG1C

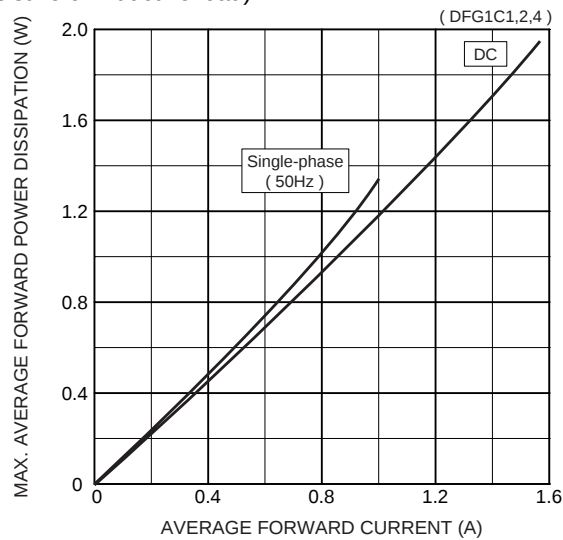
Forward characteristics



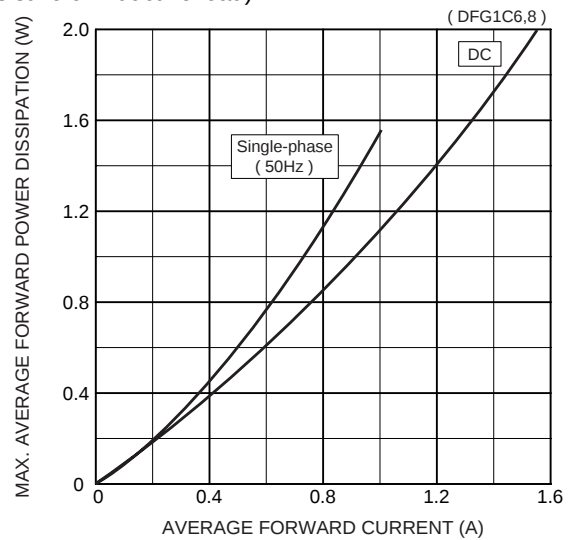
Forward characteristics



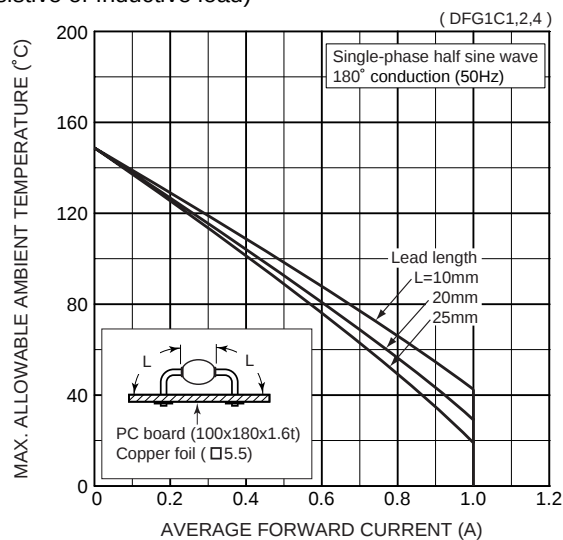
Max. average forward power dissipation
(Resistive or inductive load)



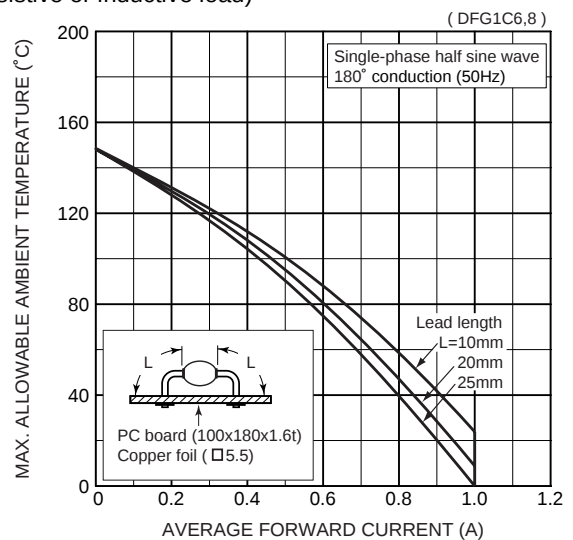
Max. average forward power dissipation
(Resistive or inductive load)



Max. allowable ambient temperature
(Resistive or inductive load)

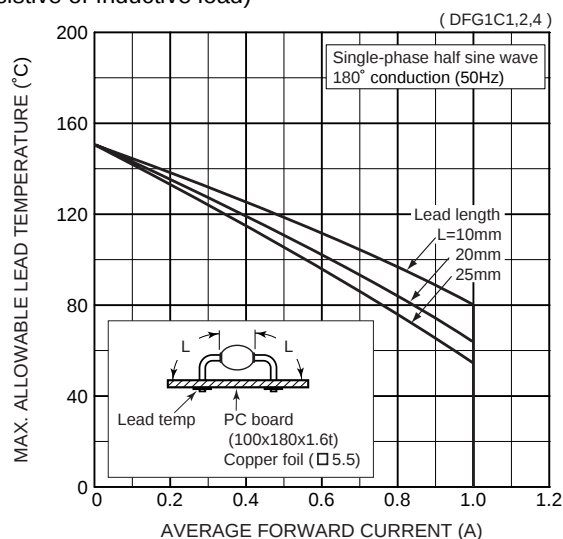


Max. allowable ambient temperature
(Resistive or inductive load)

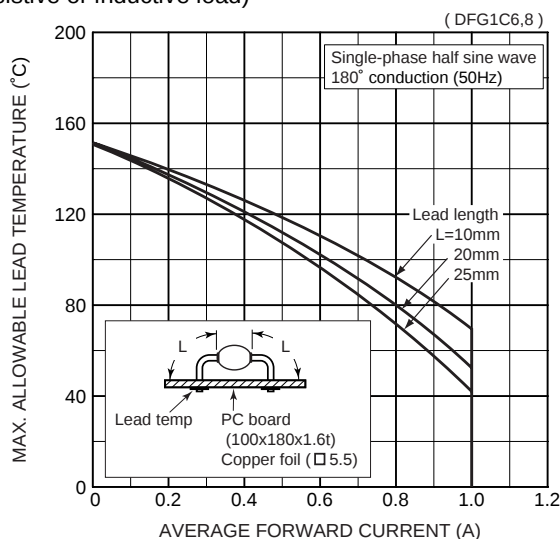


DFG1C

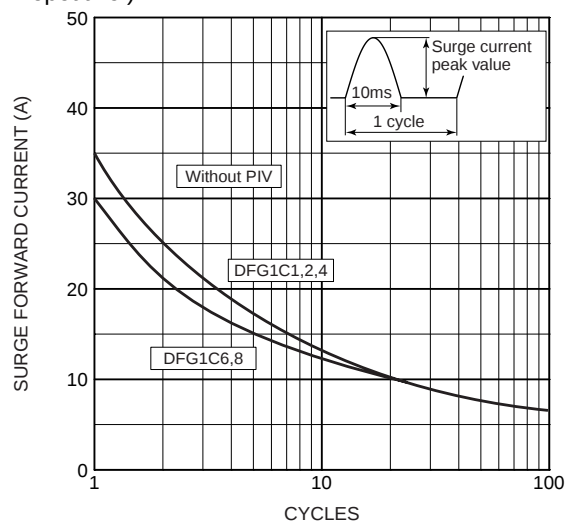
Max. allowable lead temperature
(Resistive or inductive load)



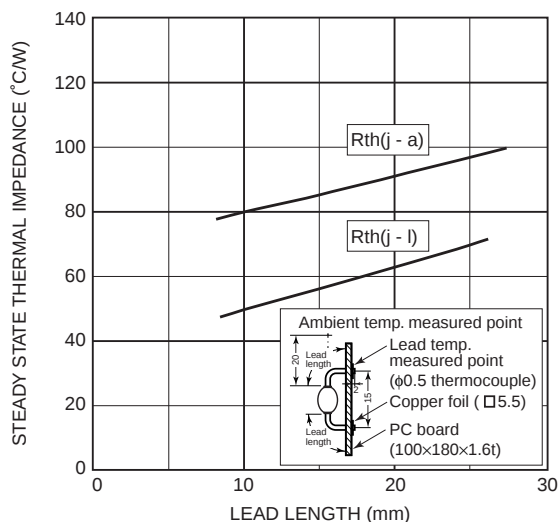
Max. allowable lead temperature
(Resistive or inductive load)



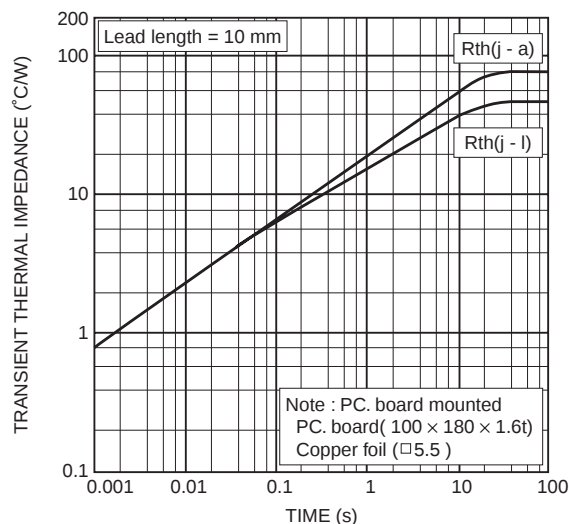
Surge forward current characteristic
(Non-repetitive)



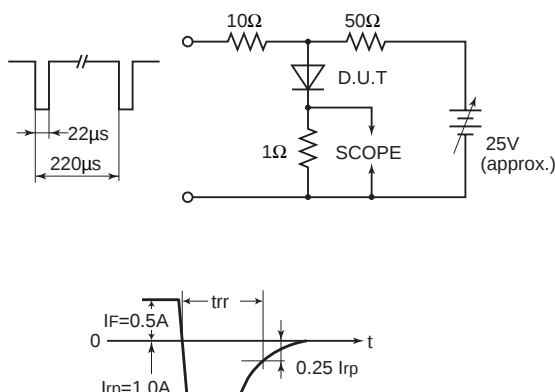
Steady state thermal impedance



Transient thermal impedance



Reverse recovery time (trr) test circuit



HITACHI POWER SEMICONDUCTORS

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