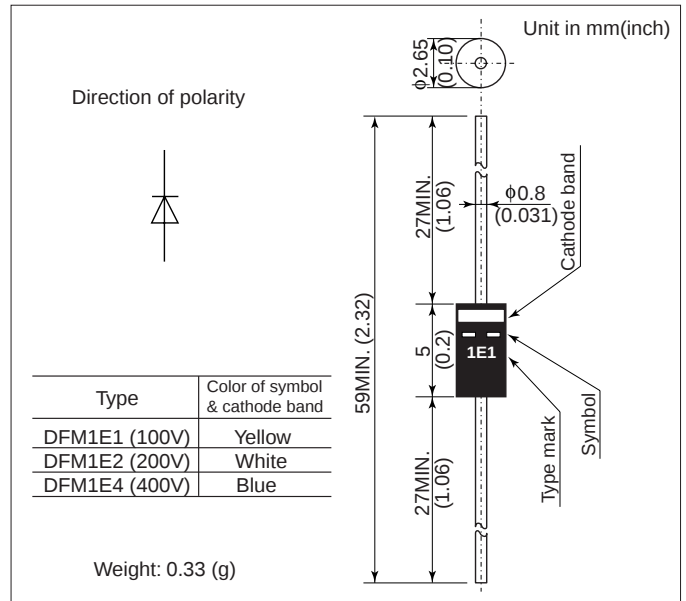


DFM1E

FEATURES

- For high speed switching.
- Diffused-junction. Resin encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type	DFM1E1	DFM1E2	DFM1E4
Repetitive Peak Reverse Voltage	V_{RRM} V	100	200	400
Average Forward Current	$I_{F(AV)}$ A	1.0 (Single-phase half sine wave 180° conduction TL = 80°C, Lead length = 6mm)		
Surge(Non-Repetitive) Forward Current	I_{FSM} A	40 (Without PIV, 10ms conduction, Tj = 40°C start)		
I ² t Limit Value	I ² t A ² s	6.4 (Time = 2 ~ 10ms, I = RMS value)		
Operating Junction Temperature	T _j °C	-40 ~ +150		
Storage Temperature	T _{stg} °C	-40 ~ +150		

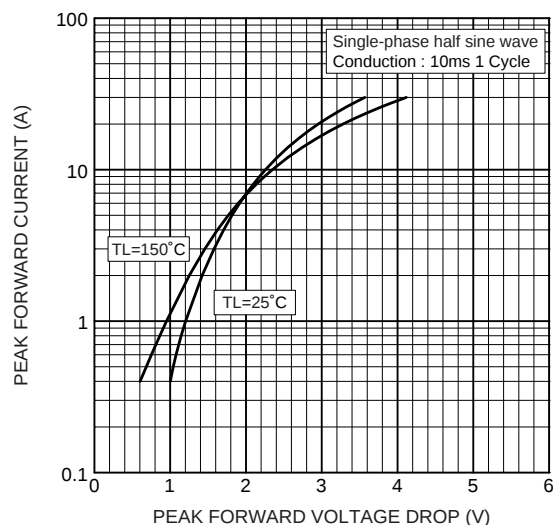
Notes (1) Lead mounting : Lead temperature 280°C max. to 3.2mm from body for 5sec. max..
 (2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

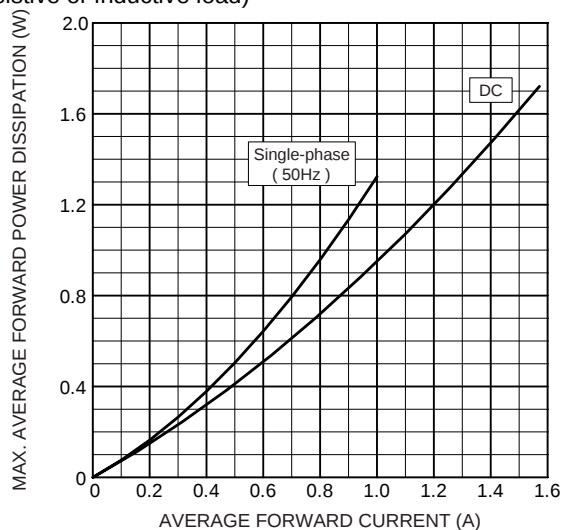
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions	
Peak Reverse Current	I _{RRM}	μA	—	—	20	DFM1E1,2	Rated V _{RRM}
					10	DFM1E4	
Peak Forward Voltage	V _{FM}	V	—	—	1.2	I _{FM} =1.0Ap, Single-phase half sine wave 1 cycle	
Reverse Recovery Time	trr	μs	—	—	0.2	I _F =0.5A, I _{rp} =1.0A, 25%recovery	
Steady State Thermal Impedance	R _{th(j-a)}	°C/W	—	—	80	Lead length = 6 mm	
	R _{th(j-l)}				50		

DFM1E

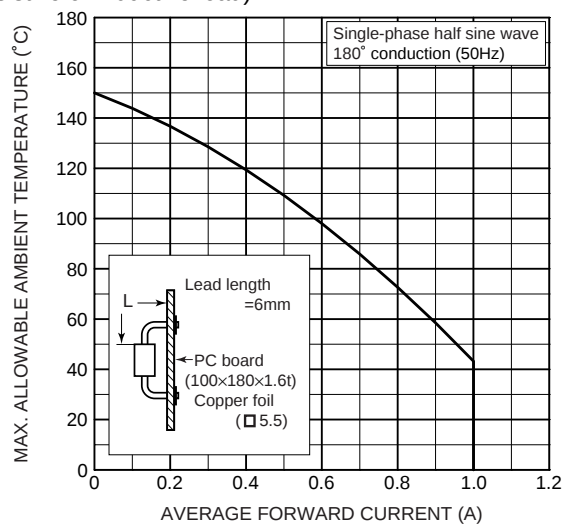
Forward characteristics



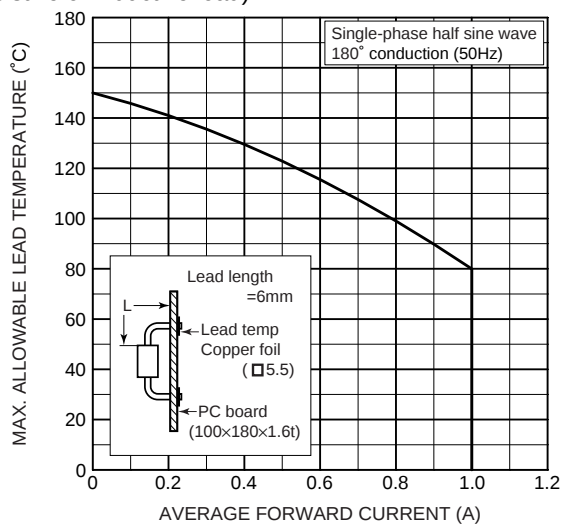
Max. average forward power dissipation
(Resistive or inductive load)



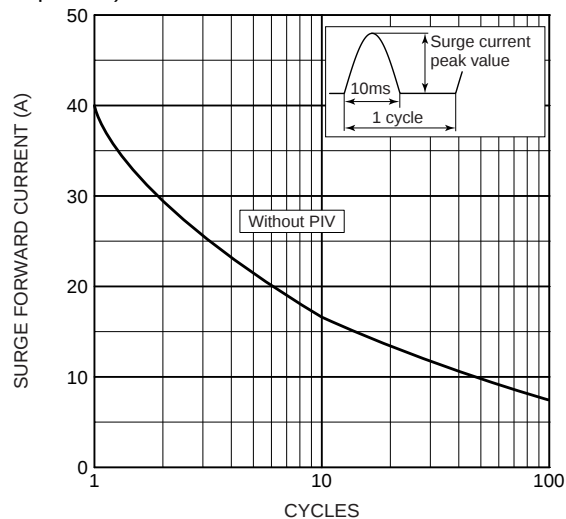
Max. allowable ambient temperature
(Resistive or inductive load)



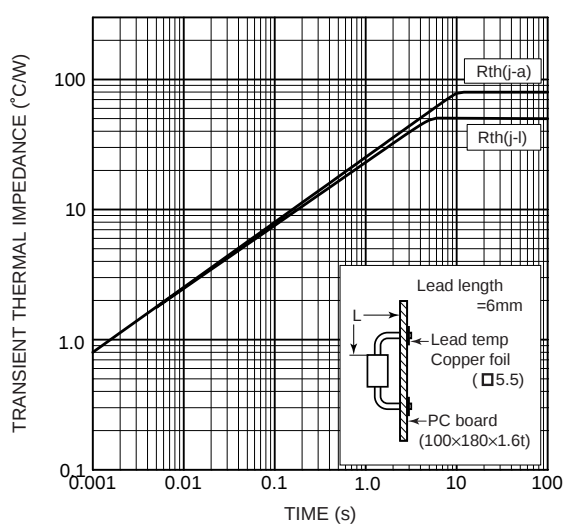
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)

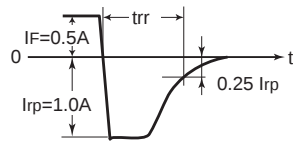
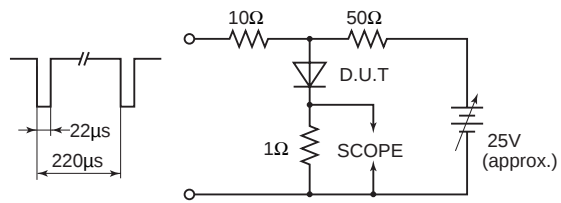


Transient thermal impedance



DFM1E

Reverse recovery time(t_{rr}) test circuit



HITACHI POWER SEMICONDUCTORS

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