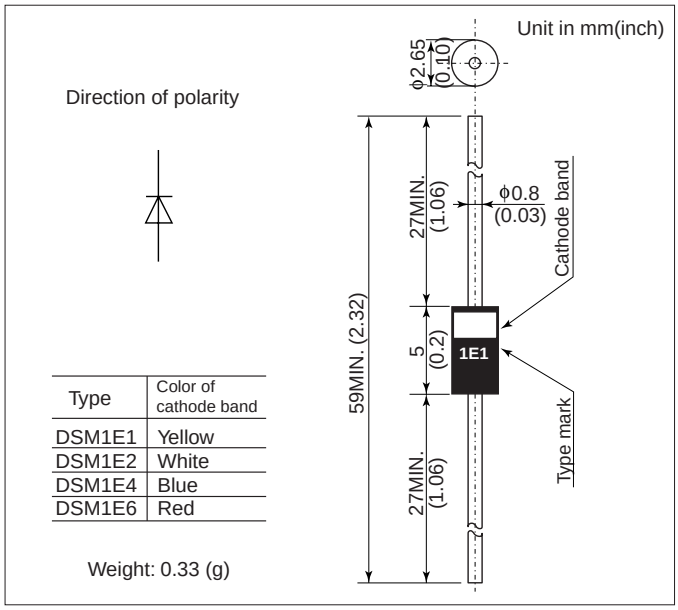
DSM1E

FEATURES

- For general purpose.
- Diffused-junction. Resin encapsulated.

OUTLINE DRAWING



Type	Color of cathode band
DSM1E1	Yellow
DSM1E2	White
DSM1E4	Blue
DSM1E6	Red

Weight: 0.33 (g)

ABSOLUTE MAXIMUM RATINGS

Items	Type		DSM1E1	DSM1E2	DSM1E4	DSM1E6
Repetitive Peak Reverse Voltage	V_{RRM}	V	100	200	400	600
Average Forward Current	$I_{F(AV)}$	A	1.0 (Single-phase half sine wave 180° conduction, TL = 100°C, Lead length = 6mm)			
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	50(Without PIV, 10ms conduction, Tj = 40°C start)			
I^2t Limit Value	I^2t	A^2s	10(Time = 2 ~ 10ms, I = RMS value)			
Operating Junction Temperature	T_j	°C	-40 ~ +150			
Storage Temperature	T_{stg}	°C	-40 ~ +150			

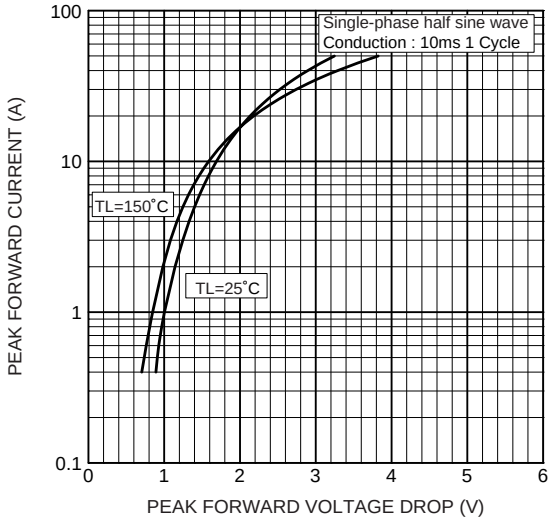
Notes (1) Lead mounting : Lead temperature 280°C max. to 3.2mm from body for 5sec. max..
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

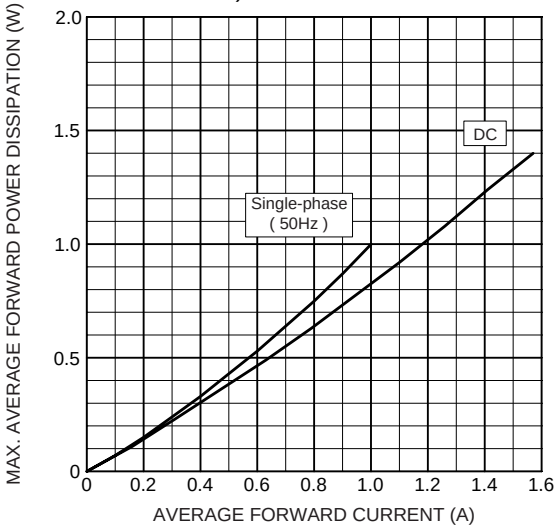
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions	
Peak Reverse Current	I_{RRM}	μA	—	—	20	DSM1E1,2	Rated V_{RRM}
					10	DSM1E4,6	
Peak Forward Voltage	V_{FM}	V	—	—	1.0	I_{FM}=1.0Ap, Single-phase half sine wave 1 cycle	
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	80	Lead length = 6 mm	
	$R_{th(j-l)}$				50		

DSM1E

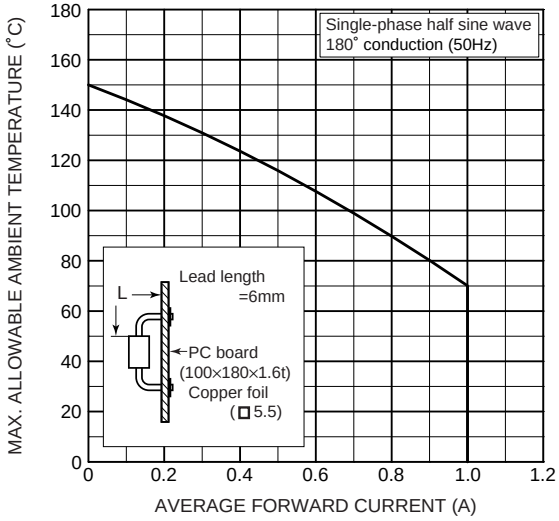
Forward characteristics



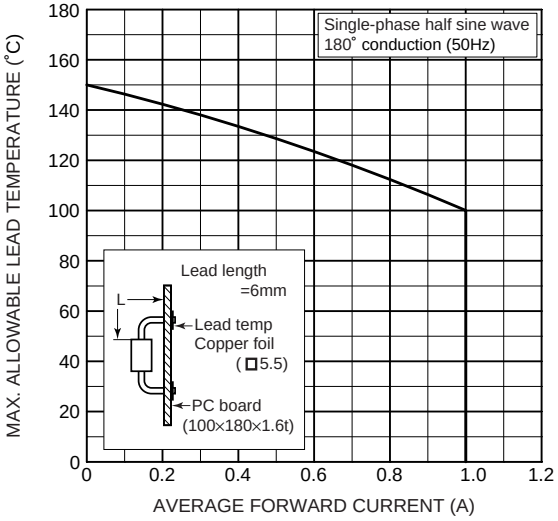
Max. average forward power dissipation
(Resistive or inductive load)



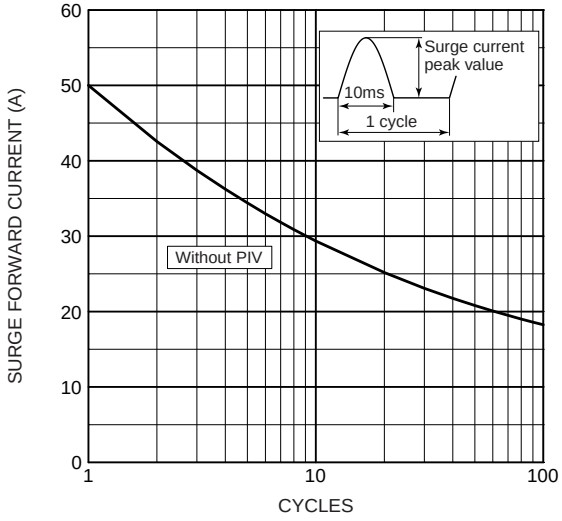
Max. allowable ambient temperature
(Resistive or inductive load)



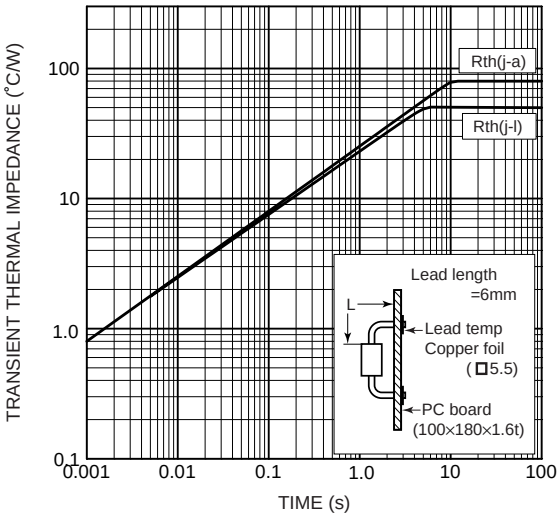
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Transient thermal impedance



HITACHI POWER SEMICONDUCTORS

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