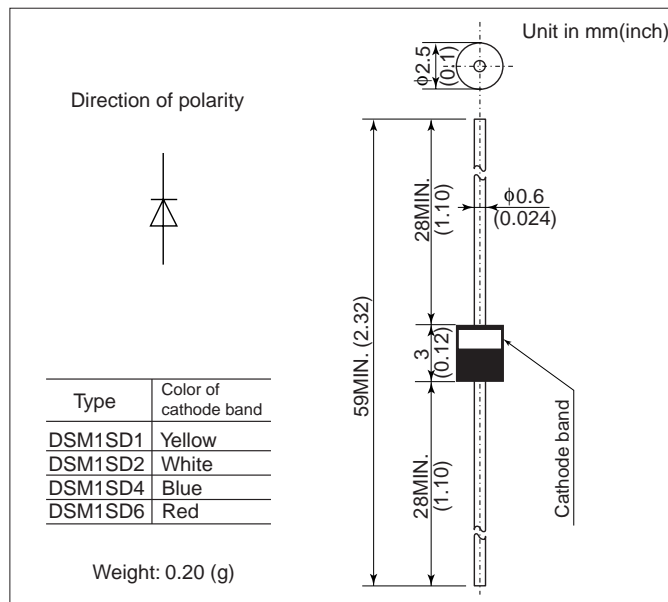


DSM1SD

FEATURES

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

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type		DSM1SD1	DSM1SD2	DSM1SD4	DSM1SD6
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 = 70°C, Lead length = 3mm)			
Surge(Non-Repetitive) Forward Current	I _{FSM}	A	45			30
			(Without PIV, 10ms conduction, Tj = 40°C start)			
I²t Limit Value	I²t	A²s	8.1			3.6
			(Time = 2 ~ 10ms, I = RMS value)			
Operating Junction Temperature	T _j	°C	-40 ~ +150			
Storage Temperature	T _{sto}	°C	-40 ~ +150			

Notes (1) Lead mounting : Lead temperature 280°C max. to 3.2mm from body for 5sec. max..

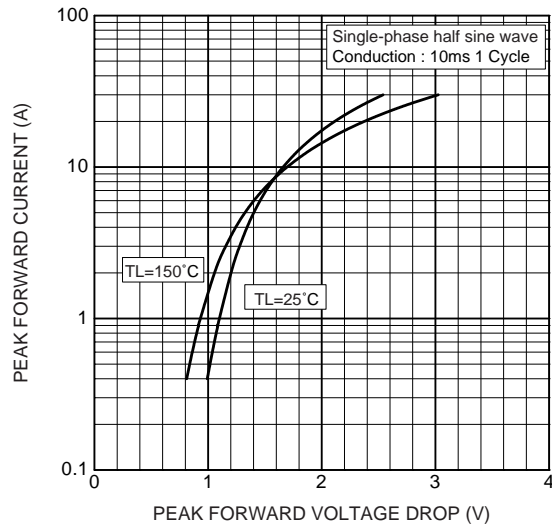
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

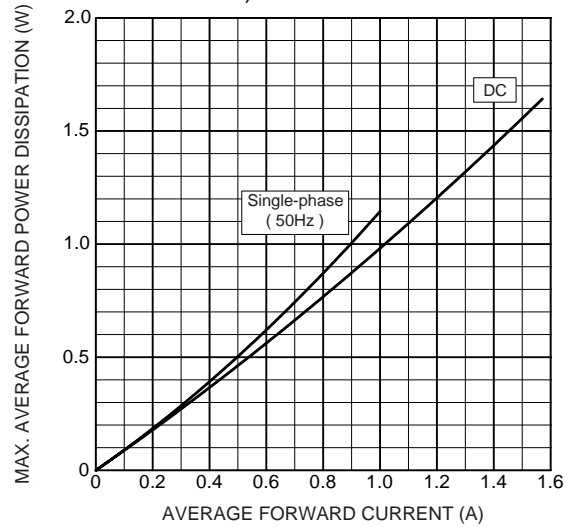
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	—	20 10	DSM1SD1,2 DSM1SD4,6 Rated V_{RRM}
Peak Forward Voltage	V_{FM}	V	—	—	1.1	$I_{FM}=1.0A_p$, Single-phase half sine wave 1 cycle
Steady State Thermal Impedance	$R_{th(j-a)}$ $R_{th(j-l)}$	°C/W	—	—	100 70	Lead length = 3 mm

DSM1SD

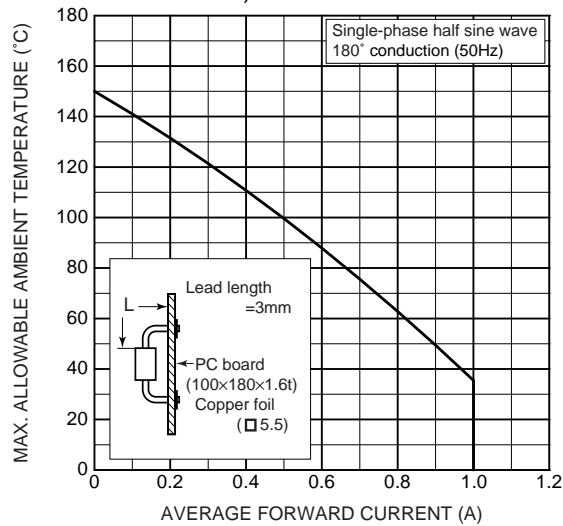
Forward characteristics



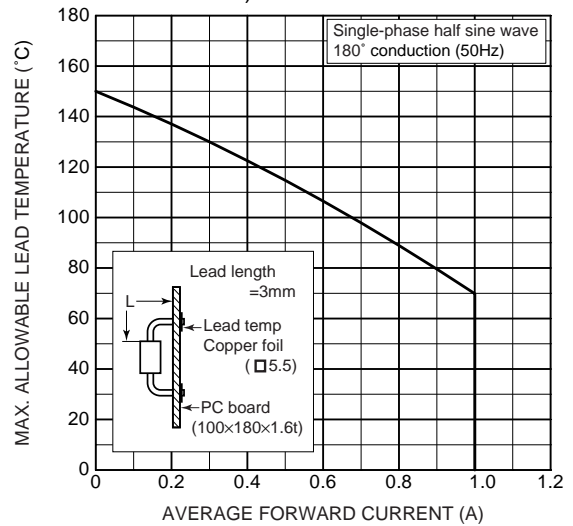
Max. average forward power dissipation
(Resistive or inductive load)



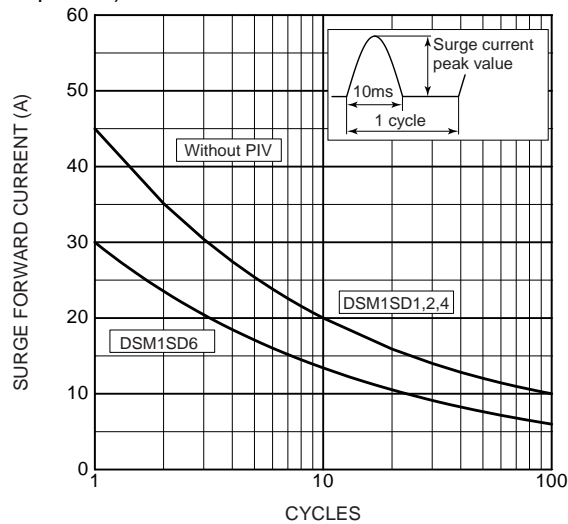
Max. allowable ambient temperature
(Resistive or inductive load)



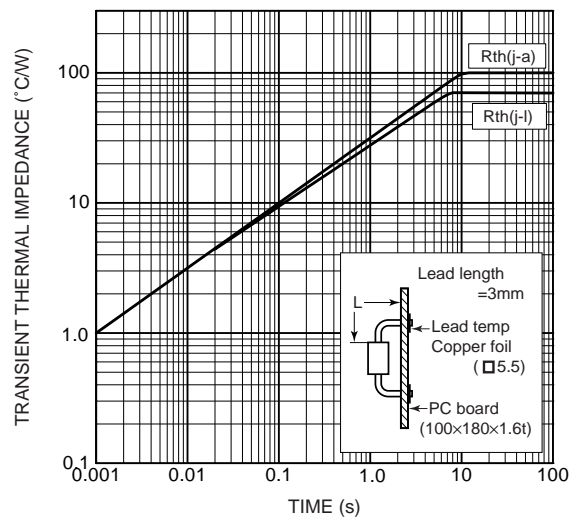
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Transient thermal impedance



HITACHI POWER SEMICONDUCTORS

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