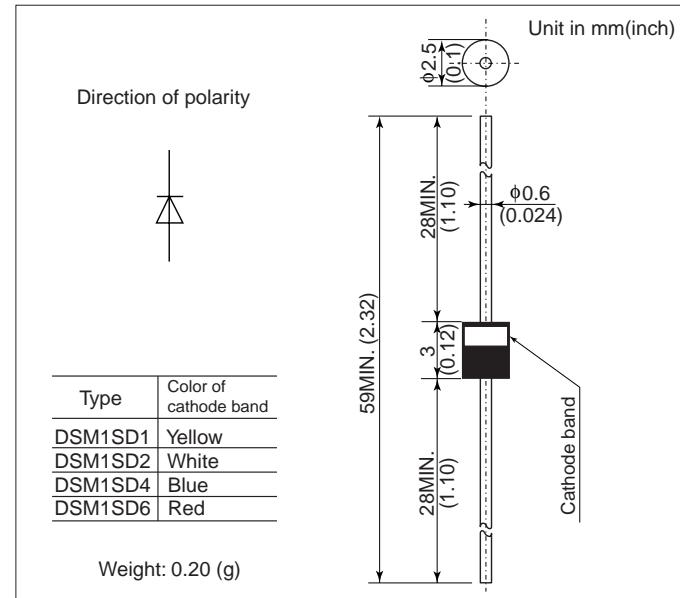


DSM1SD

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
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, $T_j = 40^\circ\text{C}$ start)		
I^2t Limit Value	I^2t	A^2s	8.1	3.6	
			(Time = 2 ~ 10ms, I = RMS value)		
Operating Junction Temperature	T_j	$^\circ\text{C}$	-40 ~ +150		
Storage Temperature	T_{stg}	$^\circ\text{C}$	-40 ~ +150		

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

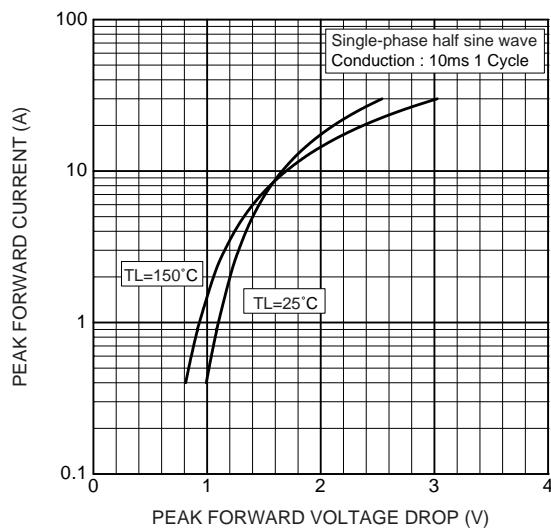
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS($T_L=25^\circ\text{C}$)

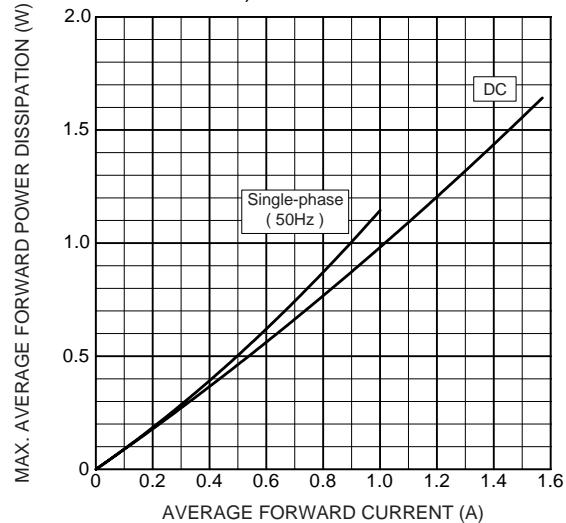
Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions		
Peak Reverse Current	I_{RRM}	μA	—	—	20	DSM1SD1,2	Rated V_{RRM}	
					10			
Peak Forward Voltage	V_{FM}	V	—	—	1.1	$I_{FM}=1.0\text{Ap}$, Single-phase half sine wave 1 cycle		
Steady State Thermal Impedance	$R_{th(j-a)}$	$^\circ\text{C/W}$	—	—	100	Lead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

DSM1SD

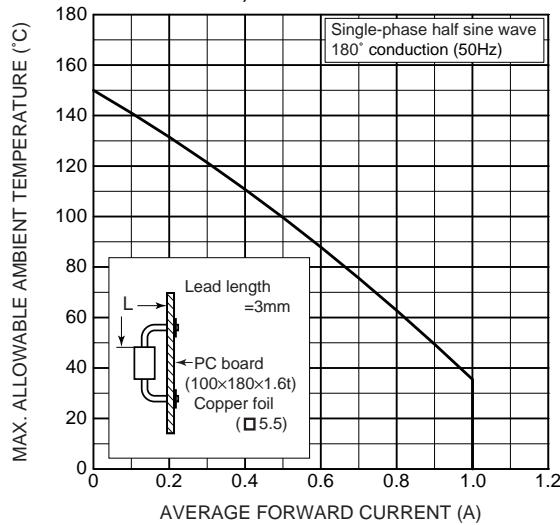
Forward characteristics



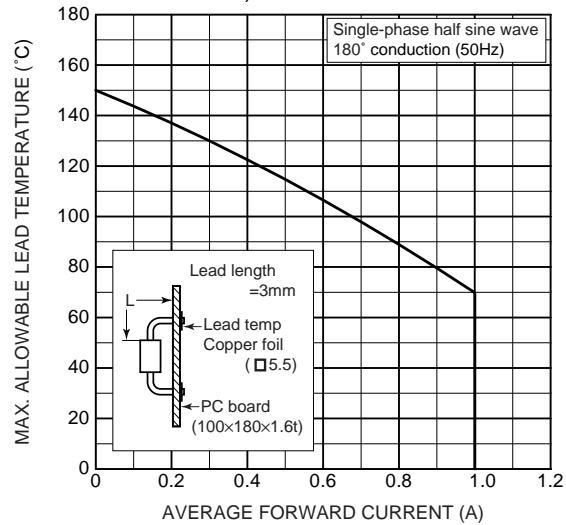
Max. average forward power dissipation
(Resistive or inductive load)



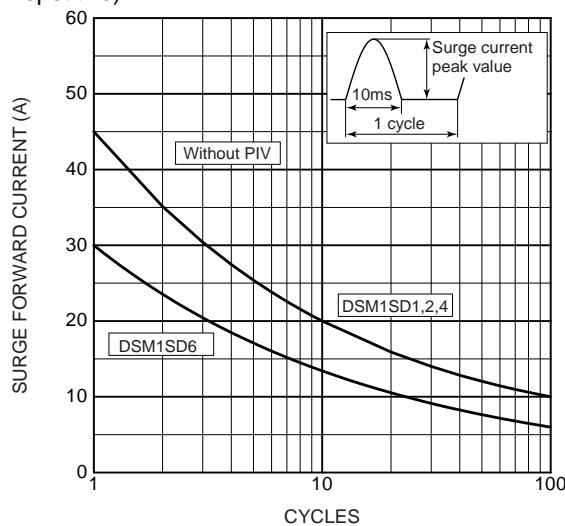
Max. allowable ambient temperature
(Resistive or inductive load)



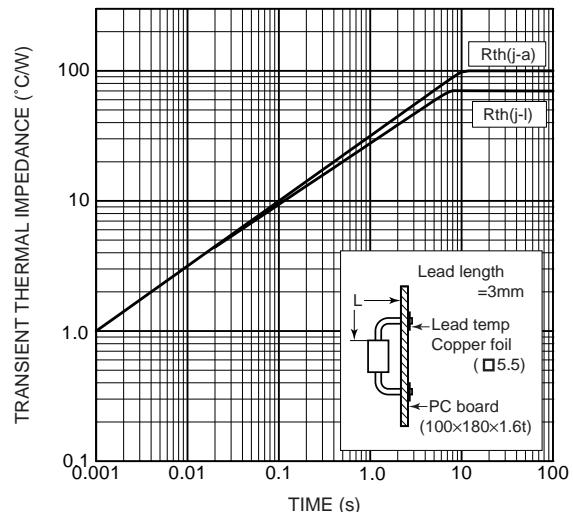
Max. allowable lead temperature
(Resistive or inductive load)



Surge forward current characteristic
(Non-repetitive)



Transient thermal impedance



HITACHI POWER SEMICONDUCTORS

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