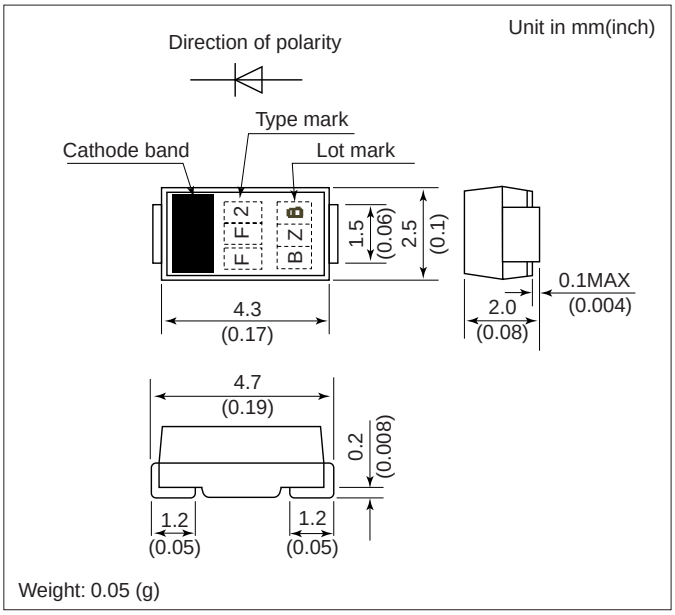
DFM1MF

FEATURES

- For high speed switching
- Soft recovery, low noise.
- Low loss, high efficiency.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

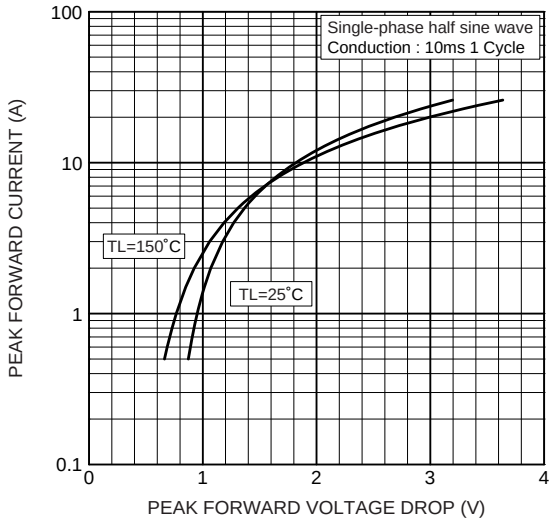
Item	Type		DFM1MF2
Repetitive Peak Reverse Voltage	V_{RRM}	V	200
Average Forward Current	$I_{F(AV)}$	A	1.0 (Single-phase half sine wave 180□ conduction TL = 130°C)
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	25 (Without PIV, 10ms conduction, Tj = 40°C start)
Operating Junction Temperature	T_j	°C	-40 ~ +150
Storage Temperature	T_{stg}	°C	-40 ~ +150

CHARACTERISTICS(T_L=25°C)

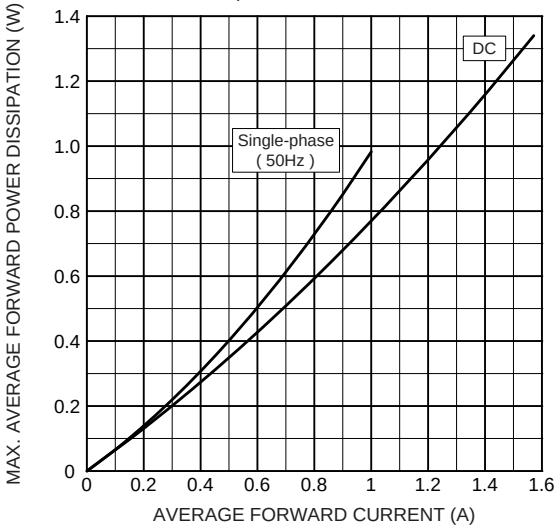
Item	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	—	—	10	$V_R = V_{RRM}$
Peak Forward Voltage	V_{FM}	V	—	—	0.95	I_{FM}=1.0Ap, Single-phase half sine wave 1 cycle
Reverse Recovery Time	Trr	ns	—	—	35	I_F=0.5A, I_{rp}=1.0A, 25%recovery
Steady State Thermal Impedance	$R_{th(j-a)}$	°C/W	—	—	120	On glass-epoxi substrate (□ 50mm)
	$R_{th(j-l)}$				20	Soldering land(□ 6mm)

DFM1MF

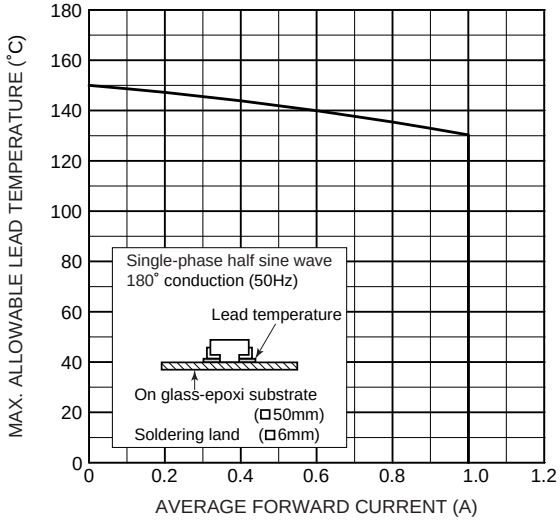
Forward characteristics



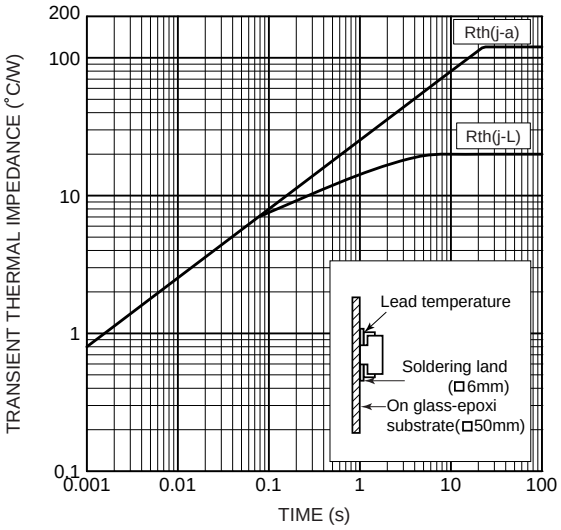
Max. average forward power dissipation
(Resistive or inductive load)



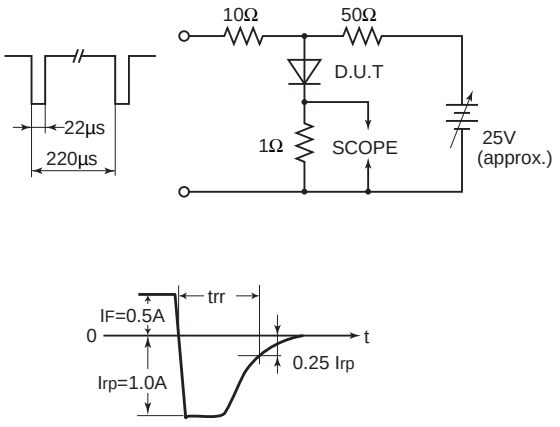
Max. allowable lead temperature
(Resistive or inductive load)



Transient thermal impedance



Reverse recovery time(trr) test circuit



Precautions for Safe Use and Notices

If semiconductor devices are handled inappropriate manner, failures may result.
For this reason, be sure to read “Precaution for Use” before use.

⚠ This mark indicates an item about which caution is required.

⚠ **CAUTION** This mark indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and damage to property.

⚠ CAUTION

(1) Regardless of changes in external conditions during use “absolute maximum ratings” should never be exceed in designing electronic circuits that employ semiconductors.In the case of pulse use, furthermore,″safe operating area(SOA)”precautions should be observed.

(2) Semiconductor devices may experience failures due to accident or unexpected surge voltages. Accordingly, adopt safe design features, such as redundancy or prevention of erroneous action, to avoid extensive damage in the event of a failure.

(3) In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, life-support-related medical equipment, fuel control equipment and various kinds of safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of user’s fail-safe precautions or other arrangement. Or consult Hitachi’s sales department staff.

(If a semiconductor device fails, there may be cases in which the semiconductor device, wiring or wiring pattern will emit smoke or cause a fire or in which the semiconductor device will burst)

NOTICES

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http://www.hitachi-power-semiconductor-device.co.jp/en/