

THREE PHASE BRIDGE MODULE MDS100(S)



FEATURES

- ☞ **Isolated mounting base 2500V-**
- ☞ **Pressure contact technology with increased power cycling capability**
- ☞ **Space and weight savings**
- ☞ **Welding**

TYPICAL APPLICATIONS

- ☞ **Inverter**
- ☞ **Inductive heating**
- ☞ **Chopper**

**THREE PHASE
BRIDGE MODULE
MDS100(S)**



TECHNICAL DATA

DEVICE TYPE

V_{RRM}
(V)

V_{RSM}
(V)

MDS100(S)/12	1200	1300
MDS100(S)/16	1600	1700

SYMBOL	ITEM	CONDITION	RATINGS	UNIT	
I_D	Output Current (D.C.)	Three phase full wave. $T_c : 102^\circ\text{C}$	100	A	
I_{FSM}	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	910/1000	A	
I^2t	I^2t	Value for one cycle of surge current	4100	A ² S	
T_j	Operating Junction Temperature		-40~+150	°C	
T_{stg}	Storage Temperature		-40~+125	°C	
V_{iso}	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5~2.5 (15~25)	2.7 (28)	
	Mass	Typical Value	160	g	

ELECTRICAL CHARACTERISTICS

SYMBOL	ITEM	CONDITION	RATINGS			UNIT
			MIN	TYP	MAX	
I_{RRM}	Repetitive Peak Reverse Current	$T_j = 150^\circ\text{C}$ at V_{RRM}			15	mA
V_{FM}	Forward Voltage Drop	$T_j = 25^\circ\text{C}$, $I_{FM} = 100\text{A}$, Inst. measurement			1.2	V
$R_{th(j-c)}$	Thermal Impedance	Junction to case			0.2	°C/W

**THREE PHASE
BRIDGE MODULE
MDS100(S)**

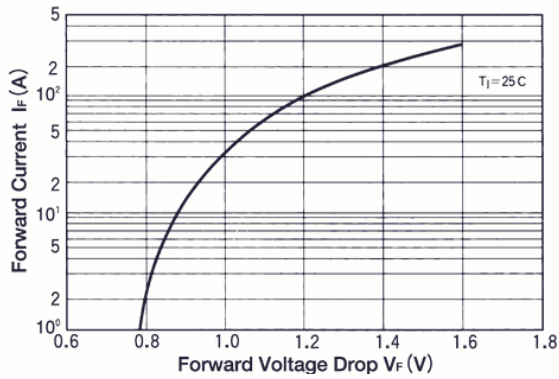


FIG. 1 maximum forward characteristics

FIG. 2 output current vs. power dissipation

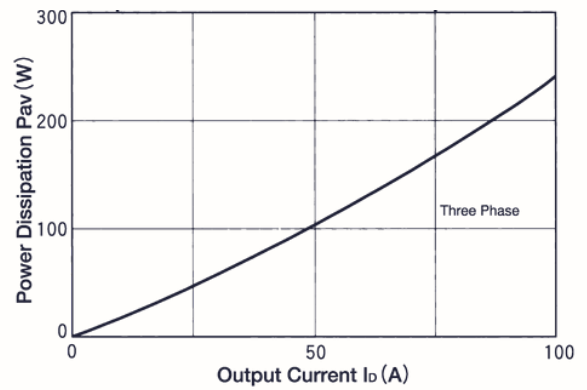
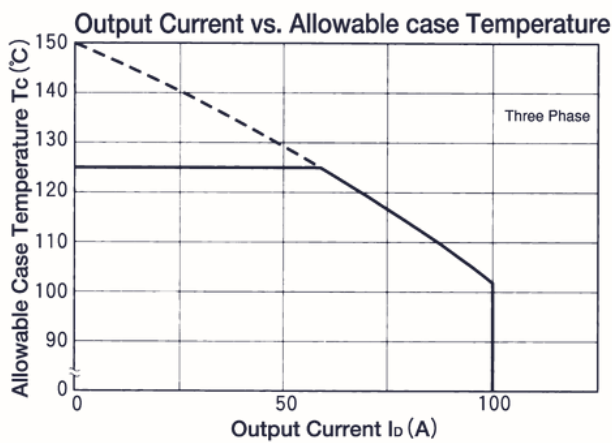


FIG. 3 output current vs. allowable case temperature



**THREE PHASE
BRIDGE MODULE
MDS100(S)**

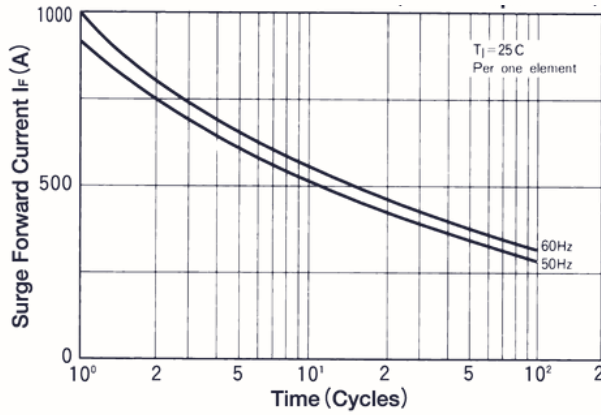
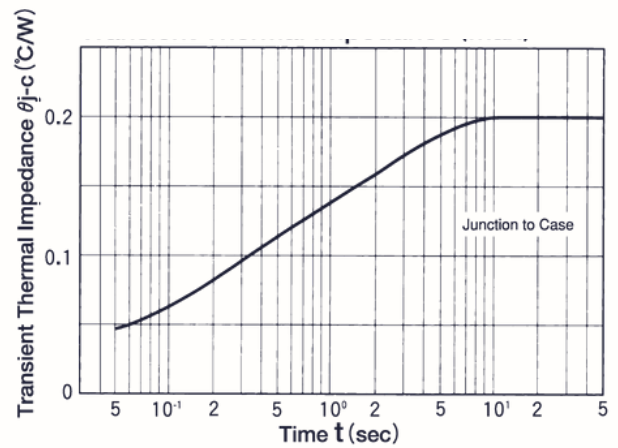


FIG. 4 cycle surge forward current rating (non Repetitive)

FIG. 5 transient thermal impedance (max)

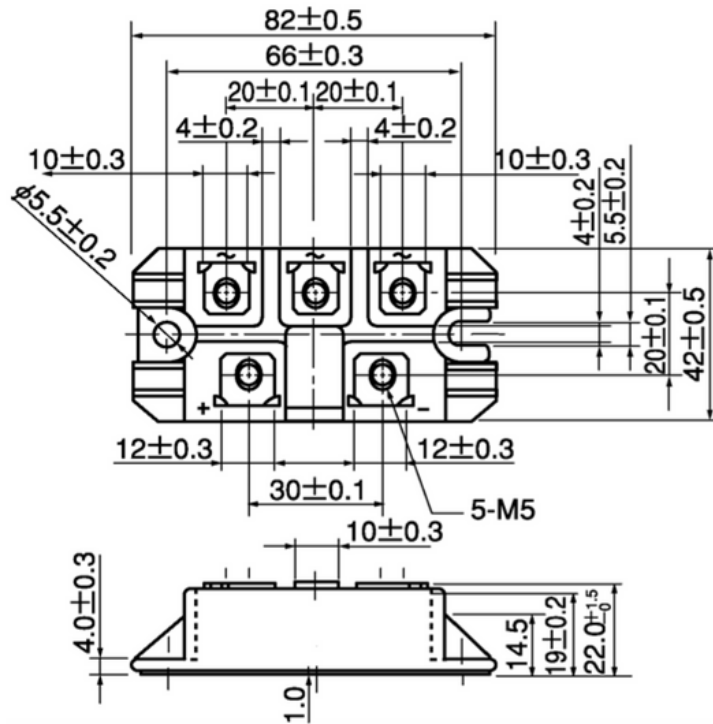


**THREE PHASE
BRIDGE MODULE**

MDS100(S)



PACKAGE OUTLINE



IR- 6

CIRCUIT DIAGRAM

