

MITSUBISHI DIODE MODULES

RM60DZ/CZ-24,-2H

HIGH VOLTAGE MEDIUM POWER GENERAL USE
INSULATED TYPE

RM60DZ/CZ-24,-2H



- **IF(AV)** Average forward current **500A**
- **VRRM** Repetitive peak reverse voltage
..... **400/800/1200/1600V**

- **DOUBLE ARMS**
- **Insulated Type**
- **UL Recognized**

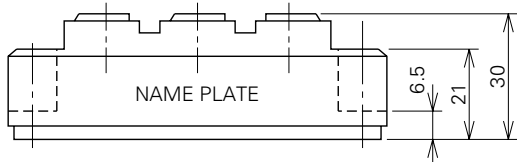
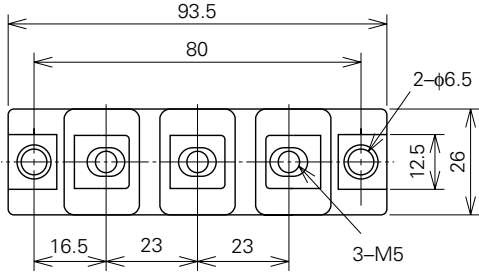
Yellow Card No. E80276 (N)
File No. E80271

APPLICATION

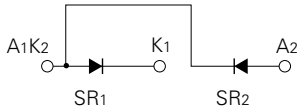
DC motor control inverters, DC motor controllers, battery DC power supplies,
DC power supplies for control panels, and other general DC power equipment

OUTLINE DRAWING & CIRCUIT DIAGRAM

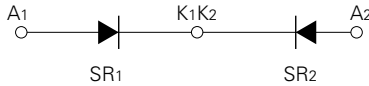
Dimensions in mm



(DZ)



(CZ)



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ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Voltage class		Unit
		24	2H	
VRRM	Repetitive peak reverse voltage	1200	1600	V
VRSM	Non-repetitive peak reverse voltage	1350	1700	V
VR (DC)	Reverse DC voltage	960	1280	V

Symbol	Parameter	Conditions	Ratings	Unit
IF (RMS)	RMS forward current		95	A
IF (AV)	Average forward current	Single-phase, half-wave 180° conduction, Tc=112°C	60	A
IFSM	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	1200	A
I ² t	I ² t for fusing	Value for one cycle of surge current	6.0 × 10 ³	A ² s
f	Maximum operating frequency		1000	Hz
T _j	Junction temperature		-40~150	°C
T _{stg}	Storage temperature		-40~125	°C
V _{iso}	Isolation voltage	Charged part to case	2500	V
—	Mounting torque	Main terminal screw M5	1.47~1.96	N·m
			15~110	kg·cm
		Mounting screw M6	1.96~2.94	N·m
—	Weight	Typical value	20~30	kg·cm
			160	g

ELECTRICAL CHARACTERISTICS

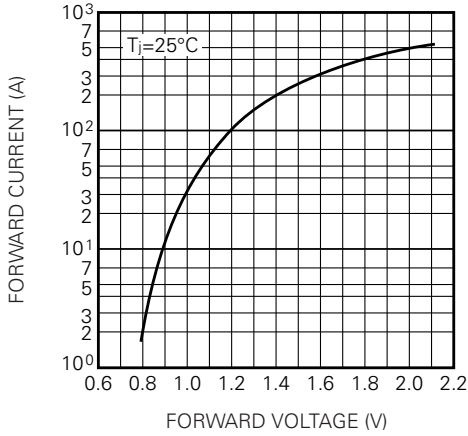
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive reverse current	T _j =150°C, V _{RRM} applied	—	—	20	mA
V _{FM}	Forward voltage	T _j =25°C, I _{FM} =180A, instantaneous meas.	—	—	1.35	V
R _{th (j-c)}	Thermal resistance	Junction to case, per 1/2 module	—	—	0.5	°C/W
R _{th (c-f)}	Contact thermal resistance	Case to fin, with thermal compound, per 1/2 module	—	—	0.2	°C/W
—	Insulation resistance	Measured with a 500V megohmmeter between main terminal and case	10	—	—	MΩ

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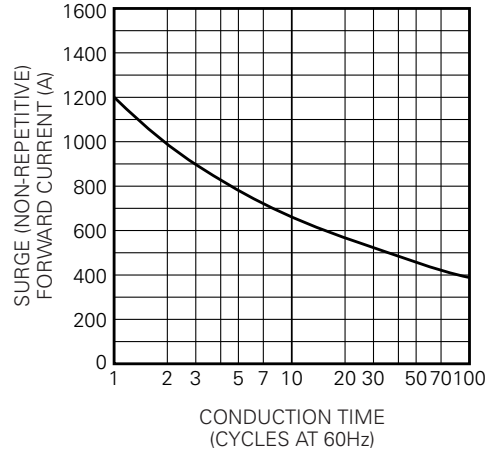
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PERFORMANCE CURVES

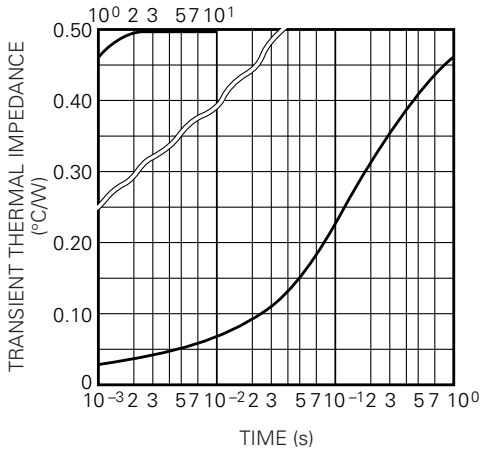
MAXIMUM FORWARD CHARACTERISTICS



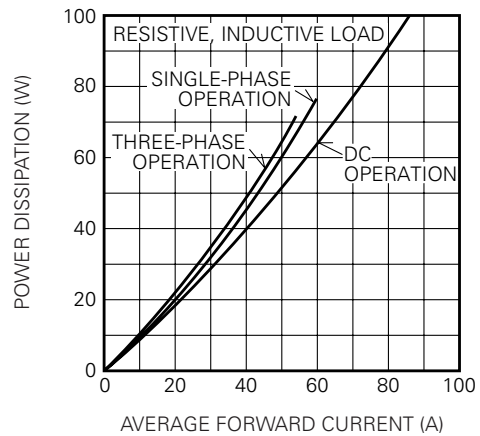
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. AVERAGE FORWARD CURRENT

