

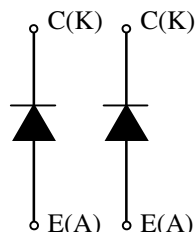
# MDM400E33D

Preliminary Specification

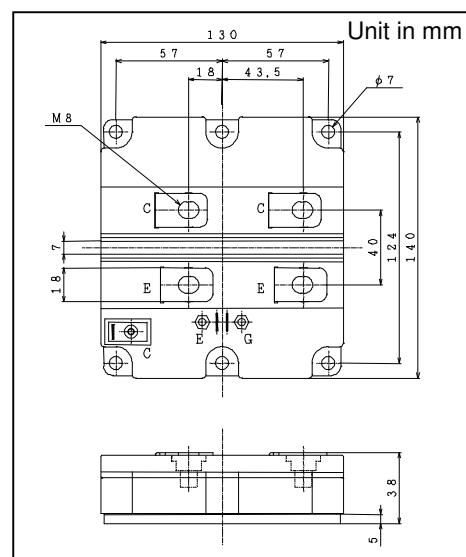
## FEATURES

- \* Low noise due to soft and fast recovery diodes.
- \* High reliability, high durability diodes.
- \* Isolated heat sink(terminal to base).

## CIRCUIT DIAGRAM



## OUTLINE DRAWING



## ABSOLUTE MAXIMUM RATINGS (TC=25°C)

Item	Symbol	Unit	MDM400E33D
Repetitive Peak Reverse Voltage	$V_{RRM}$	V	3,300
Forward Current	DC	A	400
	1ms		800
Junction Temperature	$T_j$	°C	-40 ~ +125
Storage Temperature	$T_{stg}$	°C	-40 ~ +125
Isolation Test Voltage	$V_{ISO}$	$V_{RMS}$	6,000(AC 1 minute)
Screw Torque	Terminals (M8)	-	10 (1)
	Mounting (M6)	-	6 (2)

Notes: (1) Recommended Value  $9 \pm 1 \text{ N}\cdot\text{m}$  (2) Recommended Value  $5.5 \pm 0.5 \text{ N}\cdot\text{m}$

## ELECTRICAL CHARECTERISTICS

Item	Symbol	Unit	Min.	Typ.	Max.	Test Conditions
Repetitive Reverse Current	$I_{RRM}$	mA	-	1.0	10.0	$V_{AK}=3,300\text{V}$ , $T_j=125^\circ\text{C}$
Forward Voltage Drop	$V_F$	V	-	2.5	3.0	$I_F=400\text{A}$ , $T_j=125^\circ\text{C}$ at chip level
Reverse Recovery Time	trr	μs	-	0.4	0.7	$V_{CC}=1,650\text{V}$ , $I_c=400\text{A}$ , $L=100\text{nH}$
Reverse Recovery Loss	$E_{rr(10\%)}$	J/P	-	0.4	0.7	$T_j=125^\circ\text{C}$

## PACKAGE CHARECTERISTICS

Item	Symbol	Unit	Min.	Typ.	Max.	Test Conditions
Terminal Resistance	RCE	mΩ	-	0.4	-	$T_c=25^\circ\text{C}$
Terminal Stray Inductance	LsCE	nH	-	35	-	
Partial Discharge Extinction Voltage	$V_{ex}$	$V_{rms}$	2.5	-	-	$f=50\text{Hz}$ , $Q<10\text{pC}$
Thermal Impedance	$R_{th(j-c)}$	K/W	-	-	0.051	Junction to case
Comparative tracking index	CTI		-	600	-	
Contact Thermal Impedance	$R_{th(c-f)}$	K/W	-	0.008	-	Case to fin per module

\* For improvement, specifications are subject to change without notice.

\* For actual application, please confirm this spec sheet is the newest revision.

\* Due to technical requirement, this product may contain restricted material for some application. Please contact our representatives.

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