

# Snubber Module for IGBT

## MS1250D225N

● **Features**

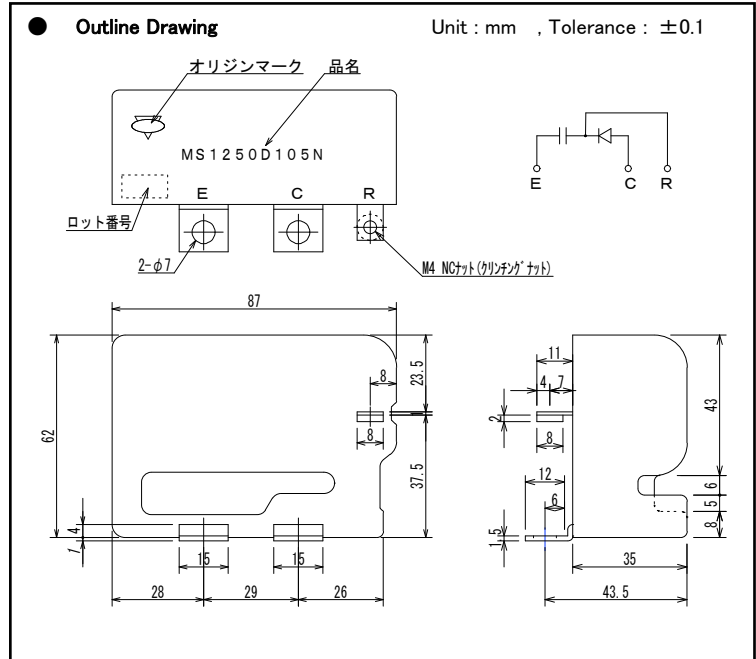
- Special diodes which are low VF and short reverse recovery time are used.
- Low loss by use of metalized polypropylene film condenser.
- Low inductance by connection of shortest distance.
- Compact size and light weight of equipments are possible.

● **Applications**

- For snubber circuits of IGBT such as inverters and stabilized power supplies.

● **Structures**

- Diode : Silicon epitaxial planar diode.
- Condenser : Metalized film condenser.
- Conforms to RoHS regulations



● **Absolute Maximum Ratings of Snubber module**

Items	Symbol	Conditions	Ratings	Unit
Operating Temperature	Temp.		-40~+85	°C
Voltage	$V_{RM}$		1200	V
RMS Voltage	$V_{iso}$	50-60Hz Sinusoidal Waveform from Terminals to case for 1 Min.	2500	V
		50-60Hz Sinusoidal Waveform from Terminals to case for 1 Sec.	3000	V
RMS Resistance	$R_{iso}$	DC 500V	100	MΩ

● **Absolute Maximum Ratings of Diode**

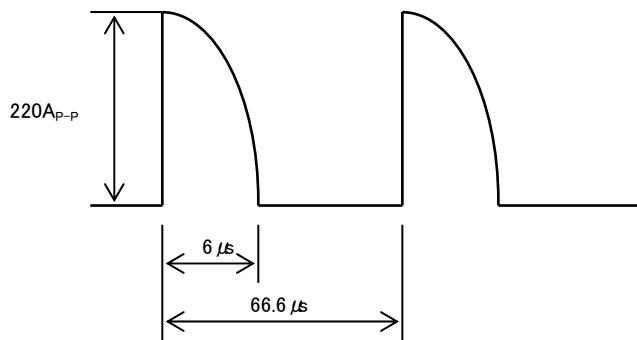
Items	Symbol	Conditions	Ratings	Unit
Peak Reverse Voltage	$V_{RM}$		1200	V
Average Rectified Forward Current	$I_O$	$T_T = 50^{\circ}C$ (Terminal temperature), Resistance Load	50	A
Peak Forward Surge Current	$I_{FSM}$	$T_a = 25^{\circ}C$ , 50Hz, Single-phase, Half sin wave, Non-Repetitive	500	A
Operating Junction Temperature	$T_j$		-40~+150	°C
Storage Temperature	$T_{srg}$		-40~+150	°C

● **Electrical Characteristics of Diode**

Items	Symbol	Conditions	MAX.	Unit
Forward Voltage Drop	$V_F$	$T_a = 25^{\circ}C$ , $I_F = 50A$	2.7	V
Reverse Current	$I_R$	$T_a = 25^{\circ}C$ , $V_R = 1200V$	100	μA
Reverse Recovery Time	$t_{rr}$	$T_a = 25^{\circ}C$ , $I_F = 30A$ , $-dif/dt = 300A/\mu s$	200	ns

● Characteristics of Condenser

Items	Performance Specifications
Capacitance	2.2 $\mu$ F $\pm$ 10%
tan $\delta$	0.001
Current (*1)	220 A <sub>P-P</sub>



(\*1) Current Waveform