

# Snubber Module for IGBT

## MS0650D225P1, MS0650D225P2

● **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**

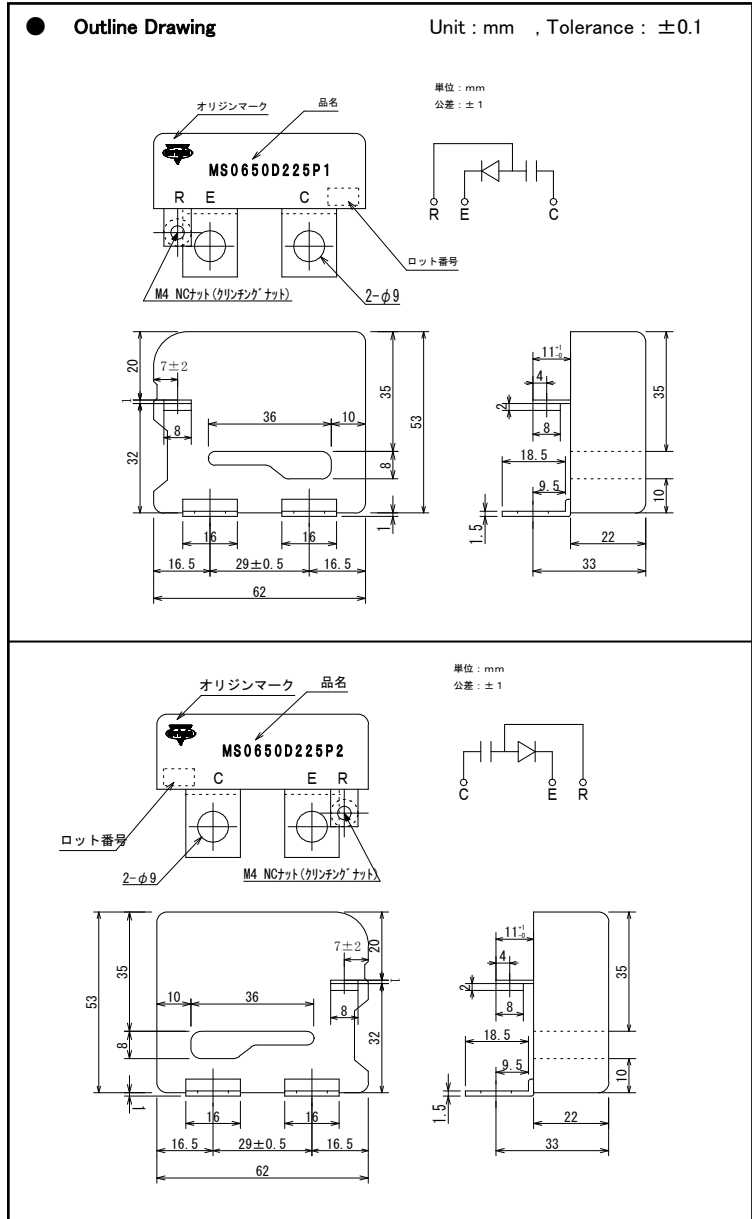
- For snubber circuits of IGBT such as inverters and stabilized power supplies.

● **Structures**

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

● **Outline Drawing**

Unit : mm , Tolerance : ±0.1



● **Absolute Maximum Ratings of Snubber module**

Items	Symbol	Conditions	Ratings	Unit
Operating Temperature	Temp.		-40~+85	°C
Voltage	$V_{RM}$		600	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

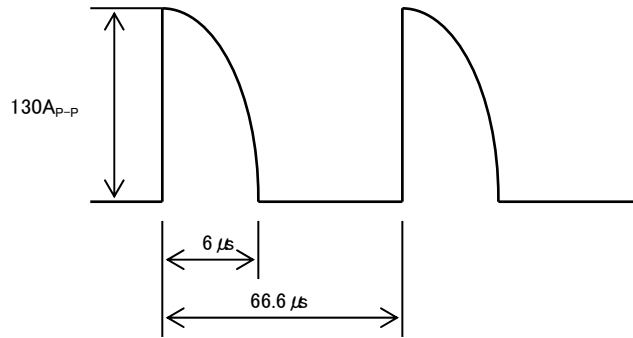
Items	Symbol	Conditions	Ratings	Unit
Peak Reverse Voltage	$V_{RM}$		600	V
Average Rectified Forward Current	$I_O$	$T_T=50^{\circ}C$ (Terminal temperature), Resistance Load	50	A
Peak Forward Surge Current	$I_{FSM}$	$T_a=25^{\circ}C$ , 50Hz, Single-phase, Half sin wave, Non-Repetitive	500	A
Operating Junction Temperature	$T_j$		-40~+150	$^{\circ}C$
Storage Temperature	$T_{SRG}$		-40~+150	$^{\circ}C$

● 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	$I_R$	$T_a=25^{\circ}C$ , $V_R=600V$	100	$\mu A$
Reverse Recovery Time	$t_{rr}$	$T_a=25^{\circ}C$ , $I_F=30A$ , $-dif/dt=5000A/\mu s$	200	ns

● Characteristics of Condenser

Items	Performance Specifications
Capacitance	2.2 $\mu F \pm 10\%$
$\tan \delta$	0.001
Current (*1)	130 A P-P



(\*1) Current Waveform