

Switching

SP8M3

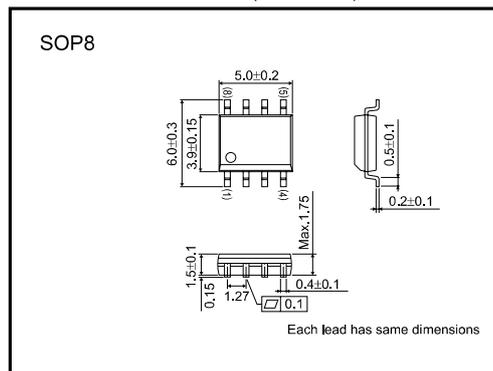
●Features

- 1) Low on-resistance.
- 2) Built-in G-S Protection Diode.
- 3) Small and Surface Mount Package (SOP8).

●Application

Power switching, DC / DC converter.

●External dimensions (Unit : mm)

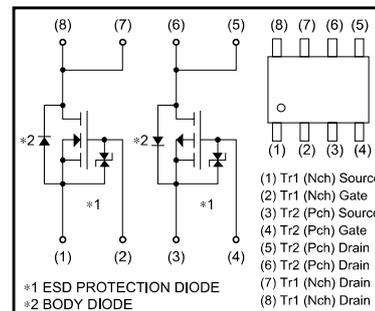


●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits		Unit	
		Nchannel	Pchannel		
Drain-source voltage	V _{DSS}	30	-30	V	
Gate-source voltage	V _{GSS}	20	-20	V	
Drain current	Continuous	I _D	±5.0	±4.5	A
	Pulsed	I _{DP}	±20	±18	A *1
Source current (Body diode)	Continuous	I _S	1.6	-1.6	A
	Pulsed	I _{SP}	20	-18	A *1
Total power dissipation	P _D	2		W *2	
Channel temperature	T _{ch}	150		°C	
Storage temperature	T _{stg}	-55 to +150		°C	

*1 P_W≤10μs, Duty cycles≤1%
*2 MOUNTED ON A CERAMIC BOARD.

●Equivalent circuit



*1 ESD PROTECTION DIODE
*2 BODY DIODE
*A protection diode is included between the gate and the source terminals to protect the diode against static electricity when the product is in use. Use the protection circuit when the fixed voltages are exceeded.

●Thermal resistance (Ta=25°C)

Parameter	Symbol	Limits	Unit
Channel to ambient	R _{th} (ch-a)	62.5	°C / W *

*MOUNTED ON A CERAMIC BOARD.