

Panasonic

SC8673010L

Asymmetric Dual Silicon N-ch Power MOS FET

For DC-DC Converter

■ Features

- Low Drain-source On-state Resistance : RDS(on) typ.
FET1 : 10 mΩ (VGS = 4.5 V), FET2 : 2.5 mΩ (VGS = 4.5 V)
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL : Level 1 compliant)

■ Marking Symbol : A1

■ Packaging

Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

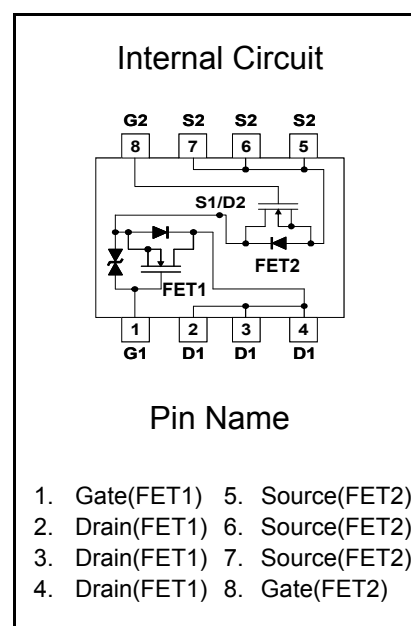
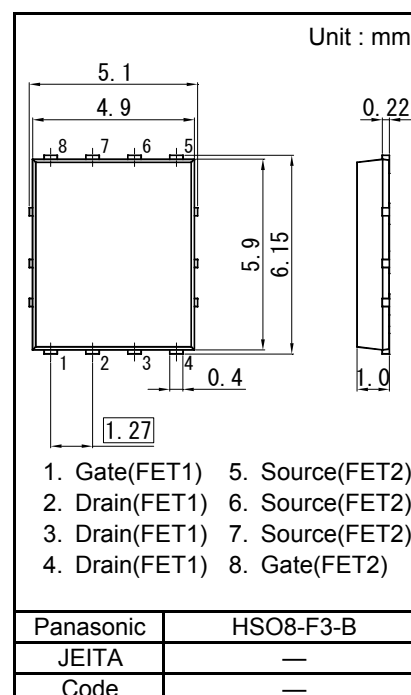
Parameter		Symbol	Rating		Unit
			FET1	FET2	
Drain to Source Voltage		VDS	30	30	V
Gate to Source Voltage		VGS	±20	±20	
Drain Current	Package limited	ID1	16	40	A
	DC ^{*1}	ID2	10	23	
Drain Current (Pulsed) ^{*1 *2}		IDp	48	120	
Total Power Dissipation	Ta = 25 °C, DC ^{*1}	PD1	1.7	2.5	W
	Ta = 25 °C, DC ^{*3}	PD2	1	1	
	Tc = 25 °C	PD3	19	34	
Thermal Resistance	Channel to Ambient ^{*1}	Rth(ch-a)1	70	50	°C / W
	Channel to Ambient ^{*3}	Rth(ch-a)2	125	120	
	Channel to Case	Rth(ch-c)	6.6	3.7	
Channel Temperature		Tch	150		°C
Operating ambient temperature		Topr	-40 to +85		
Storage Temperature Range		Tstg	-55 to +150		
Avalanche Current (Single pulse) ^{*4}		IAR	8	20	A
Avalanche Energy (Single pulse) ^{*4}		EAR	8	46	mJ

Note *1 Device mounted on a glass-epoxy board in Figure 1.1 and 1.2

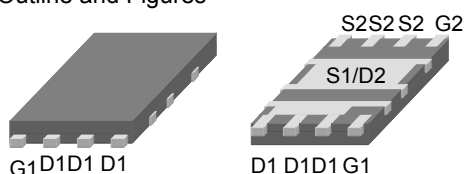
*2 Pulse test : Ensure that the channel temperature does not exceed 150 °C

*3 Device mounted on a glass-epoxy board in Figure 1.3

*4 VDD = 24 V, VGS = 10 to 0 V, L = 0.1 mH, Tch = 25 °C (initial)



Outline and Figures



FR4 Glass-Epoxy Board (25.4 mm × 25.4 mm × 0.8 mm)

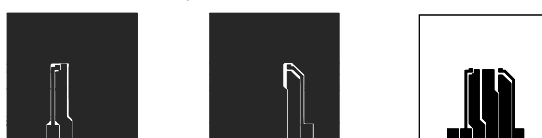


Figure 1.1 (FET1) Figure 1.2 (FET2) Figure 1.3 (FET1, FET2)