

Panasonic

SC8673030L

Asymmetric Dual Silicon N-ch Power MOSFET with Schottky Barrier Diode

For Load-switching, DC-DC Converter

■ Features

- Low Drain-source On-state Resistance : $R_{DS(on)}$ typ.
FET1 : $6.7\text{ m}\Omega$ ($V_{GS} = 4.5\text{ V}$), FET2 : $1.6\text{ m}\Omega$ ($V_{GS} = 4.5\text{ V}$)
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL : Level 1 compliant)

■ Marking Symbol : A3

■ Packaging

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

■ Absolute Maximum Ratings $T_a = 25\text{ }^\circ\text{C}$

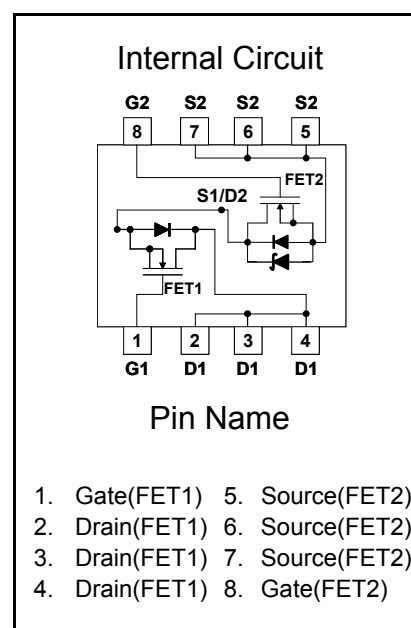
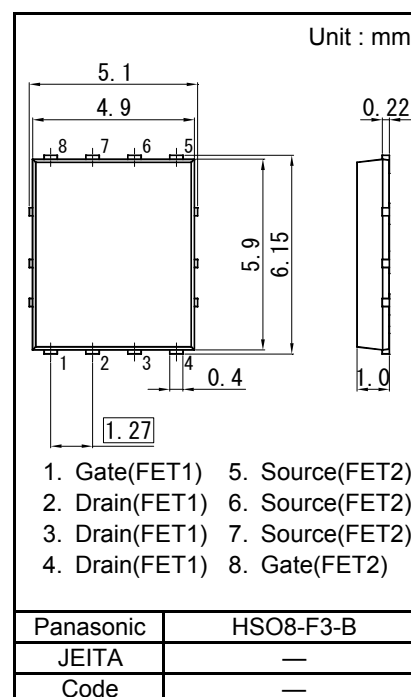
Parameter	Symbol	Rating		Unit
		FET1	FET2	
Drain to Source Voltage	V_{DS}	30	30	V
Gate to Source Voltage	V_{GS}	± 20	± 20	V
Drain Current	Package limited	$ID1$	20	A
	DC ^{*1}	$ID2$	12	
Drain Current (Pulsed) ^{*1 *2}	IDp	60	144	A
Total Power Dissipation	$T_a = 25\text{ }^\circ\text{C}$, DC ^{*1}	$PD1$	1.7	W
	$T_a = 25\text{ }^\circ\text{C}$, DC ^{*3}	$PD2$	1	
	$T_c = 25\text{ }^\circ\text{C}$	$PD3$	19	
Thermal Resistance	Channel to Ambient ^{*1}	$R_{th(ch-a)1}$	70	$^\circ\text{C} / \text{W}$
	Channel to Ambient ^{*3}	$R_{th(ch-a)2}$	125	
	Channel to Case	$R_{th(ch-c)}$	6.6	
Channel Temperature	T_{ch}	150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150		$^\circ\text{C}$
Avalanche Current (Single pulse) ^{*4}	I_{AR}	10	24	A
Avalanche Energy (Single pulse) ^{*4}	E_{AR}	13	72	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 $150\text{ }^\circ\text{C}$

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

^{*4} $V_{DD} = 24\text{ V}$, $V_{GS} = 10\text{ to }0\text{ V}$, $L = 0.1\text{ mH}$, $T_{ch} = 25\text{ }^\circ\text{C}$ (initial)



Outline and Figures

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

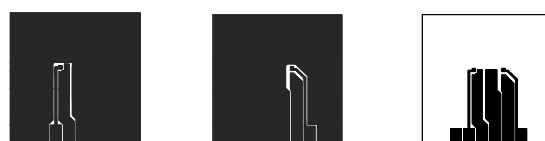
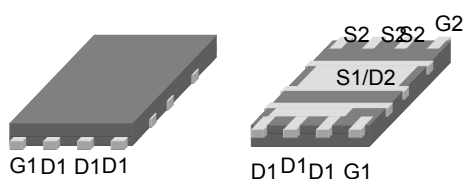


Figure 1.1 (FET1) Figure 1.2 (FET2) Figure 1.3 (FET1, FET2)