

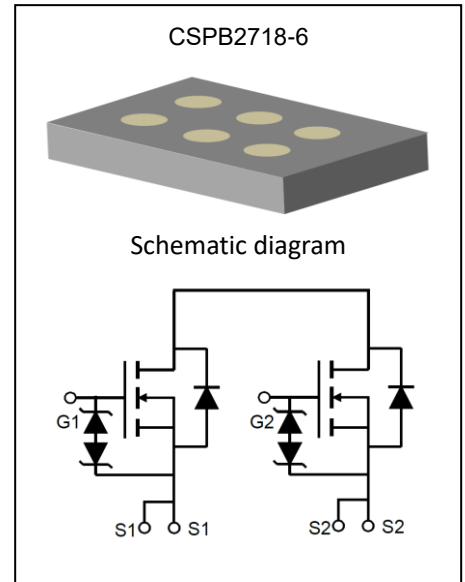
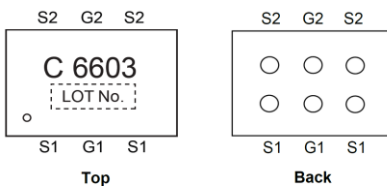
### Product Summary

V <sub>(BR)SSS</sub>	R <sub>DS(on)TYP</sub>	I <sub>SS</sub>
12V	5.0mΩ@4.5V	13A
	5.2mΩ@4.0V	
	5.3mΩ@3.8V	
	5.7mΩ@3.1V	
	6.4mΩ@2.5V	

### Description

The GP6603SP uses advanced trench technology to provide excellent R<sub>SS(ON)</sub>, low gate charge and operation with gate voltages as low as 2.5V while retaining a 12V V<sub>GS(MAX)</sub> rating. It is ESD protected. This device is suitable for use as a unidirectional or bi-directional load switch, facilitated by its common-drain configuration.

### Marking and pin assignment:



### ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Source to Source Voltage	V <sub>SSS</sub>	12	V
Gate-Source Voltage	V <sub>GSS</sub>	±12	V
Source Current(DC) <sup>1</sup>	I <sub>S</sub>	13	A
Source Current (Pulse) <sup>1,2</sup>	I <sub>SP</sub>	60	A
Total Dissipation <sup>1</sup>	P <sub>T</sub>	2.0	W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C

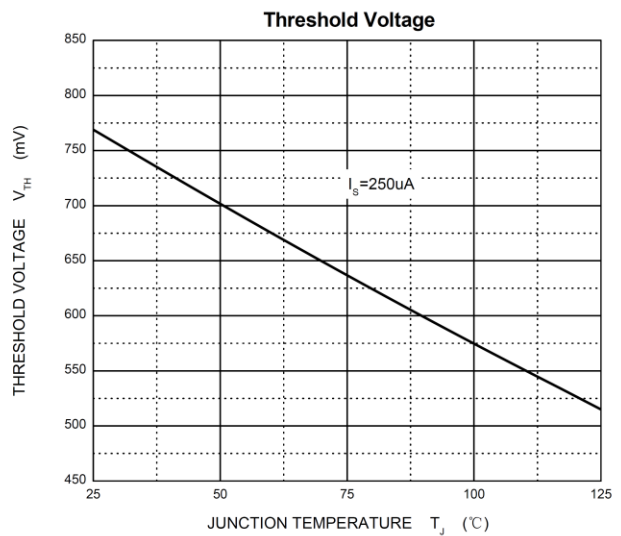
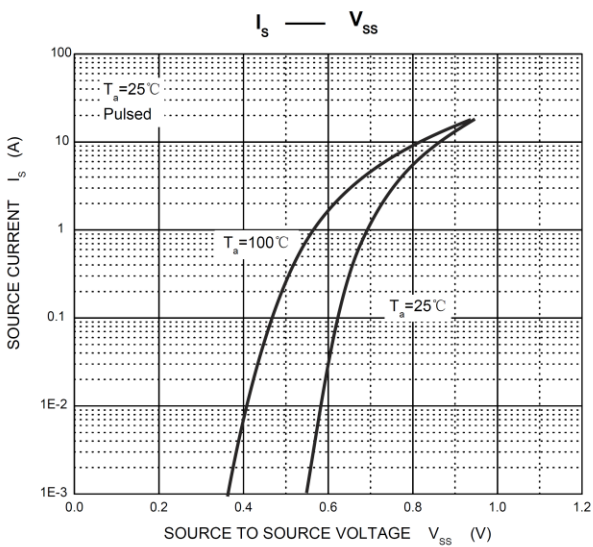
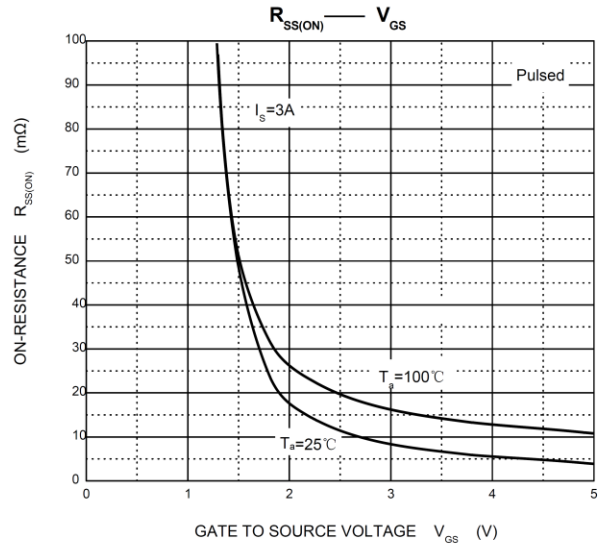
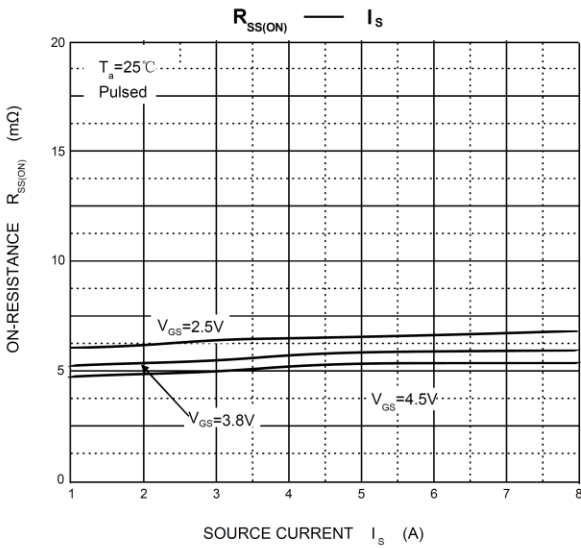
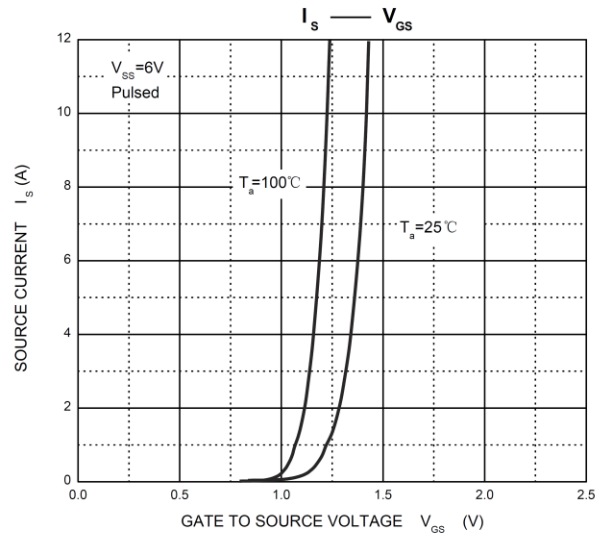
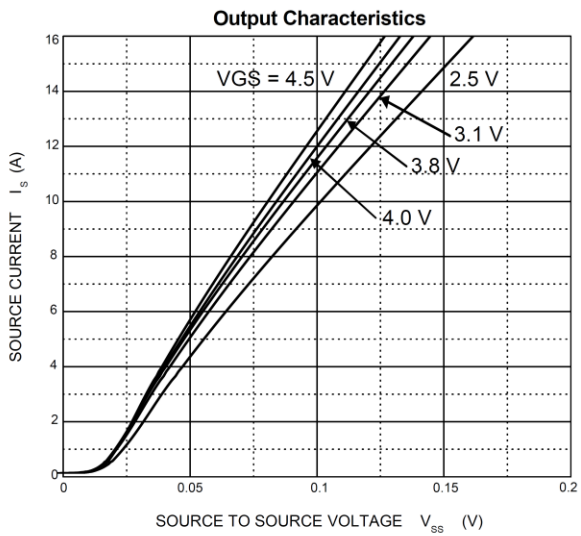
Note:

1. Mounted on FR4 board (25.4mm×25.4mm×1.0mm) using the minimum recommended pad size (36μm Copper).
2. t = 10μs, Duty Cycle≤1%

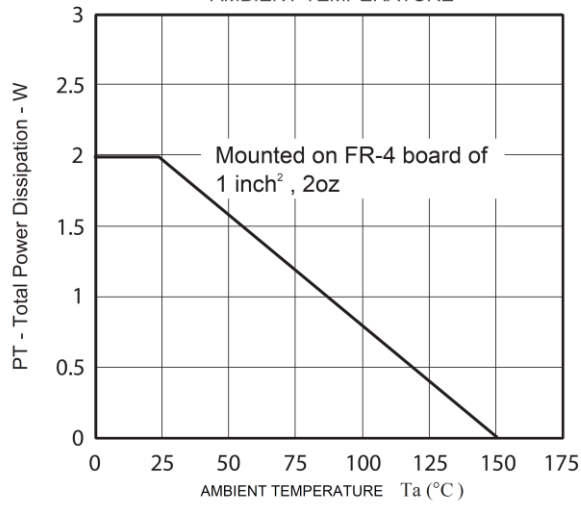
**MOSFET ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Static Parameters</b>						
Source to Source Breakdown Voltage	BV <sub>SSS</sub>	I <sub>S</sub> =250μA, V <sub>GS</sub> =0V,	12			V
Zero- Gate Voltage Source Current	I <sub>SSS</sub>	V <sub>SS</sub> =10V, V <sub>GS</sub> =0V			1	μA
Gate to Source Leakage Current	I <sub>GSS</sub>	V <sub>SS</sub> =0V, V <sub>GS</sub> = ±8V			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>SS</sub> =6V, I <sub>S</sub> =250μA	0.4	0.7	1.3	V
Forward Transfer Admittance	y <sub>gFs</sub>	V <sub>SS</sub> =6V, I <sub>S</sub> =3A	6.5			S
Static Source to Source On-Resistance	R <sub>SS(on)</sub>	V <sub>GS</sub> =4.5V, I <sub>S</sub> =3A	4.0	5.0	6.5	mΩ
		V <sub>GS</sub> =4.0V, I <sub>S</sub> =3A	4.3	5.2	6.7	
		V <sub>GS</sub> =3.8V, I <sub>S</sub> =3A	4.6	5.3	6.9	
		V <sub>GS</sub> =3.1V, I <sub>S</sub> =3A	4.9	5.7	7.5	
		V <sub>GS</sub> =2.5V, I <sub>S</sub> =3A	5.3	6.4	8.6	
Turn-on Delay Time	t <sub>d(on)</sub>	V <sub>SS</sub> =10V, I <sub>S</sub> =3A V <sub>GS</sub> =4.5V		3.2		μS
Turn-on Rise Time	t <sub>r</sub>			7.8		
Turn-Off Delay Time	t <sub>d(off)</sub>			28		
Turn-Off Fall Time	t <sub>f</sub>			25		
Total Gate Charge	Q <sub>g</sub>	V <sub>SS</sub> =10V, I <sub>S</sub> =6A, V <sub>GS</sub> =4.5V		36		nC
Diode Forward Voltage	V <sub>F(S-S)</sub>	V <sub>GS</sub> =0V, I <sub>S</sub> =6A		0.9	1.2	V

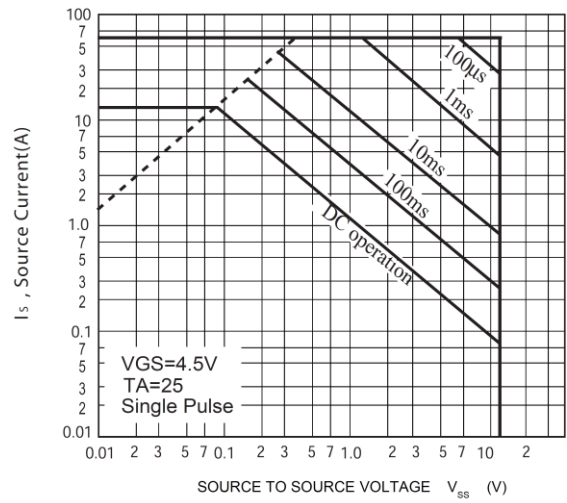
**Typical Electrical and Thermal Characteristics**



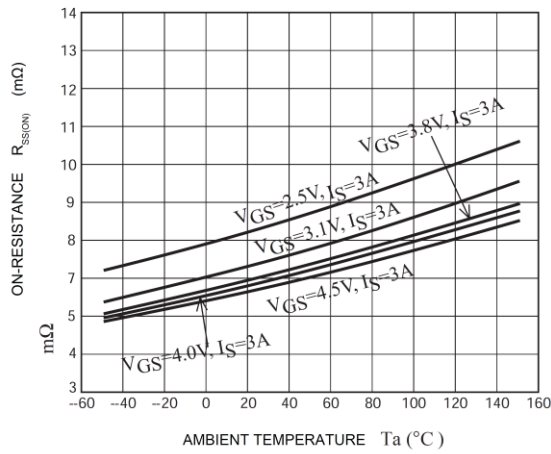
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



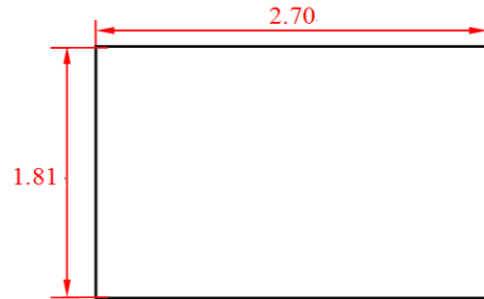
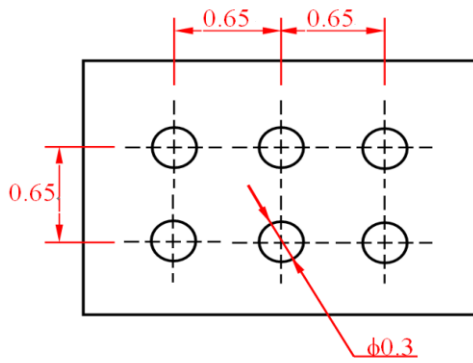
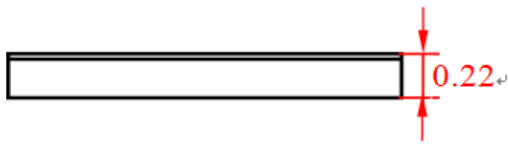
Maximum Safe Operating Area



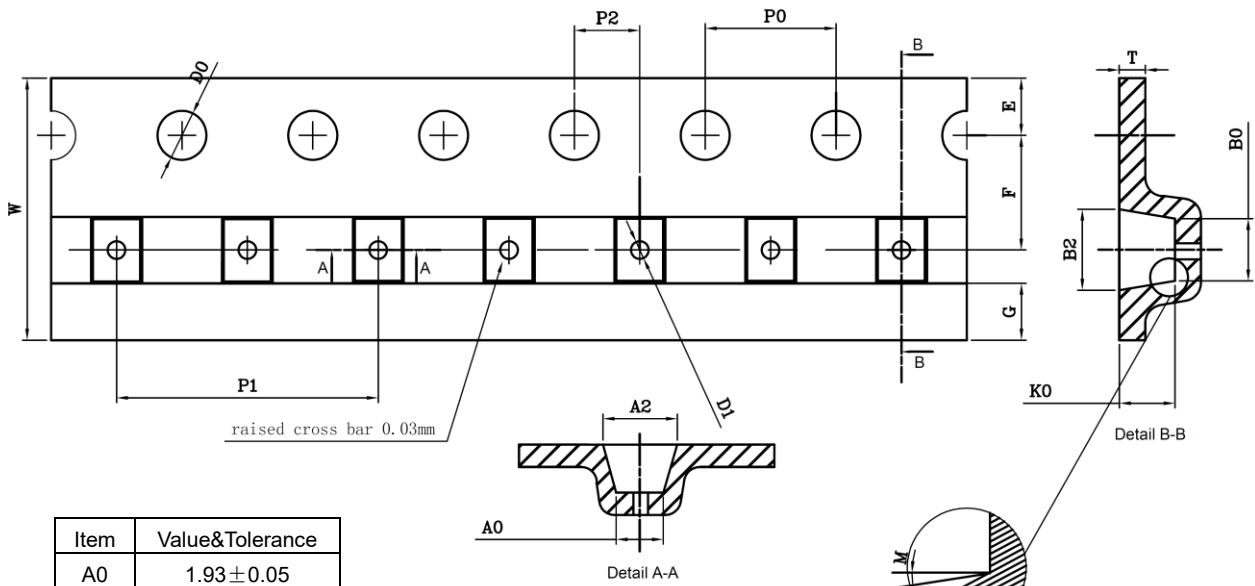
$R_{SS(ON)}$  —  $T_a$



**CSPB2718-6 Package Outline Dimensions(Unit:mm)**



**CSPB2718-6 Tape(Unit:mm)**



Item	Value&Tolerance
A0	1.93±0.05
B0	2.82±0.05
K0	0.35±0.05
A2	NA
B2	NA
D0	1.50+0.10/0.00
D1	1.00±0.10
P0	4.00±0.10
P1	4.00±0.10
P2	2.00±0.05
E	1.75±0.10
F	5.50±0.05
G	NA
T	0.25±0.03
W	12.0+0.30/-0.10
M	MAX 5°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)