

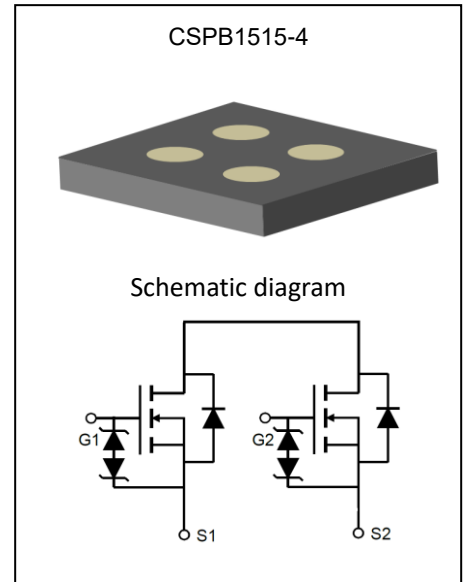
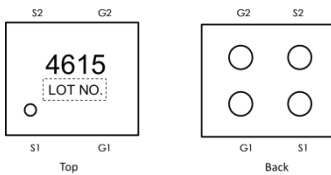
Product Summary

$V_{(BRSS)}$	$R_{DS(on)TYP}$	I_s
20V	20.5mΩ@4.5V	7A
	21.5mΩ@4.0V	
	22mΩ@3.8V	
	23mΩ@3.1V	
	26mΩ@2.5V	

Description

The GP4615SP uses advanced trench technology to provide excellent $R_{SS(ON)}$, low gate charge and operation with gate voltages as low as 2.5V while retaining a 12V $V_{GS(MAX)}$ 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 ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Source to Source Voltage	V_{SSS}	20	V
Gate-Source Voltage	V_{GSS}	± 12	V
Source Current(DC) ¹	I_s	7.0	A
Source Current (Pulse) ^{1,2}	I_{SP}	60	A
Total Dissipation	P_T	1.5	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

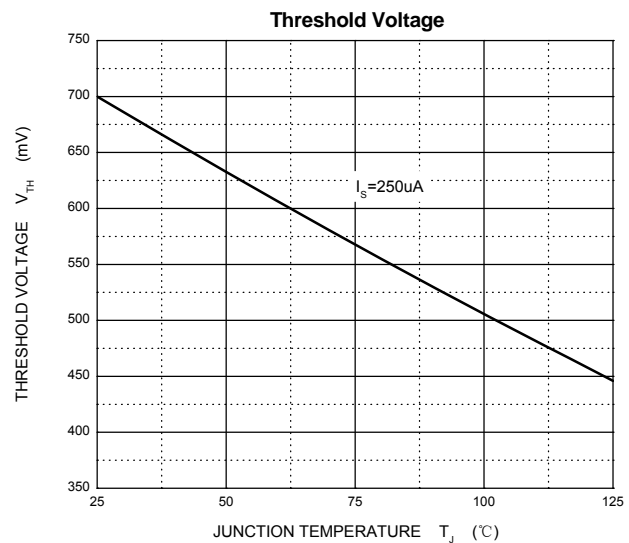
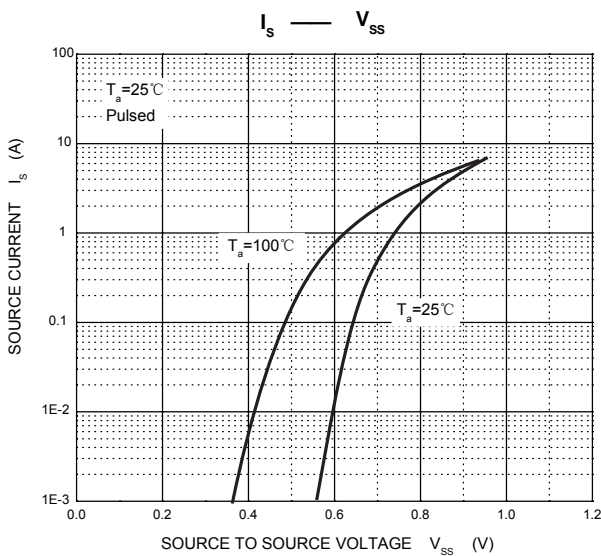
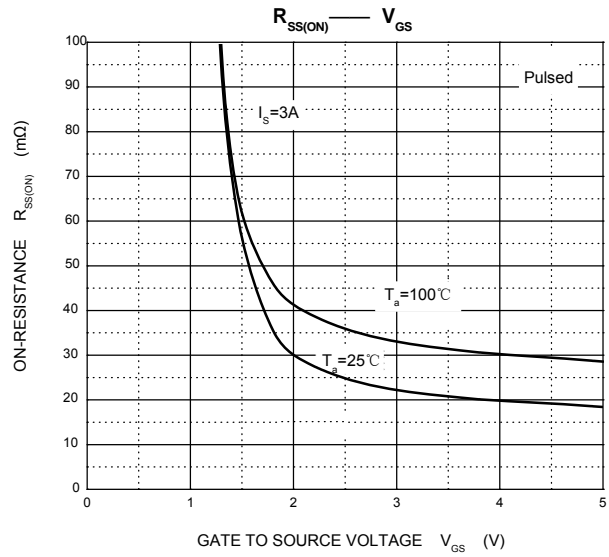
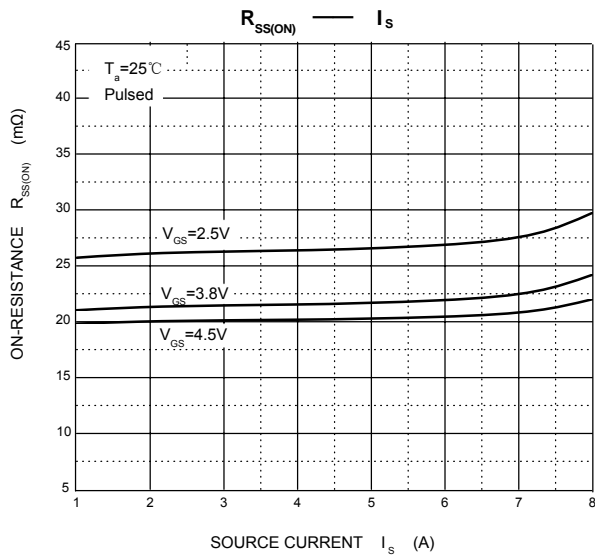
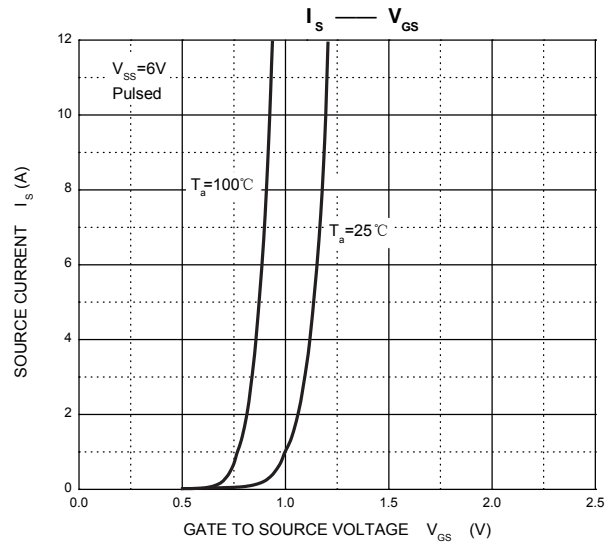
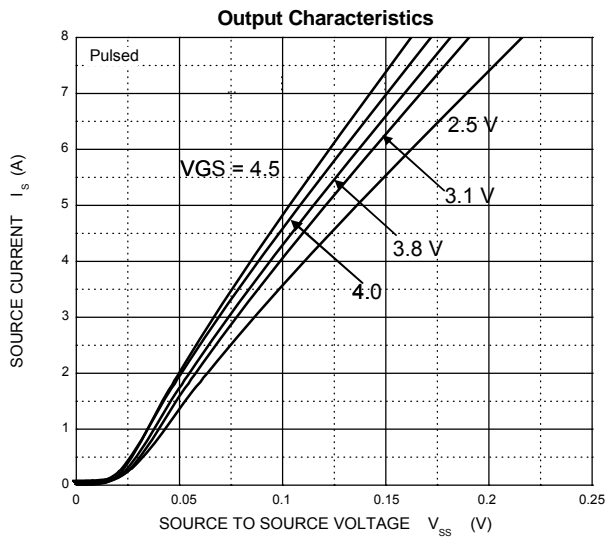
Note:

1. Mounted on FR4 board (25.4mm×25.4mm×1.0mm) using the minimum recommended pad size (36μm Copper).
2. $t = 10\mu\text{s}$, Duty Cycle≤1%

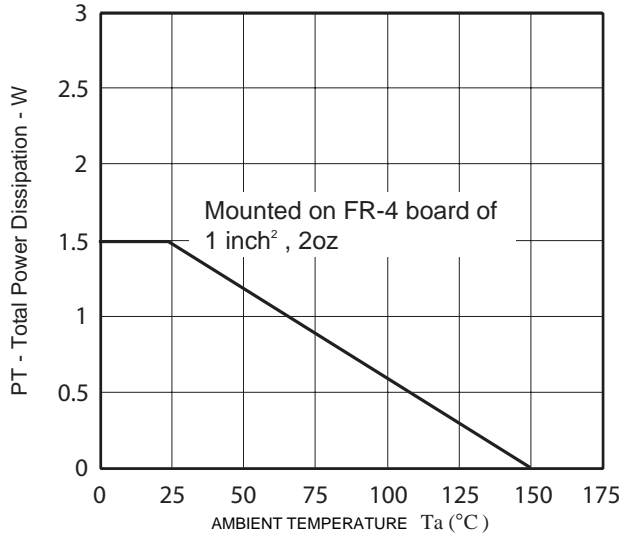
MOSFET ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Parameters						
Source to Source Breakdown Voltage	BV _{SSS}	I _S =250μA, V _{GS} =0V,	20			V
Zero- Gate Voltage Source Current	I _{SSS}	V _{SS} =16V, V _{GS} =0V			1	μA
Gate to Source Leakage Current	I _{GSS}	V _{SS} =0V, V _{GS} = ±8V			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{SS} =10V, I _S =250μA	0.5	0.8	1.3	V
Forward Transfer Admittance	y _{gFs}	V _{SS} =10V, I _S =3A	1	9		S
Static Source to Source On-Resistance	R _{SS(on)}	V _{GS} =4.5V, I _S =3A	14	20.5	26	mΩ
		V _{GS} =4.0V, I _S =3A	15	21.5	27	
		V _{GS} =3.8V, I _S =3A	16	22.0	28	
		V _{GS} =3.1V, I _S =3A	18	23.0	30	
		V _{GS} =2.5V, I _S =3A	19	26.0	35	
Turn-on Delay Time	t _{d(on)}	V _{SS} =10V, I _S =3A V _{GS} =4.5V		0.9		μS
Turn-on Rise Time	t _r			4.6		
Turn-Off Delay Time	t _{d(off)}			12		
Turn-Off Fall Time	t _f			12		
Total Gate Charge	Q _g	V _{SS} =10V, I _S =6A, V _{GS} =4.5V		11		nC
Diode Forward Voltage	V _{F(S-S)}	V _{GS} =0V, I _S =1A			1.2	V

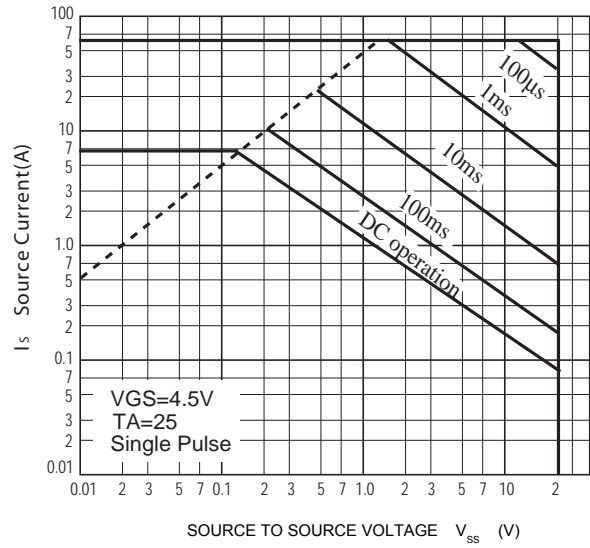
Typical Electrical and Thermal Characteristics



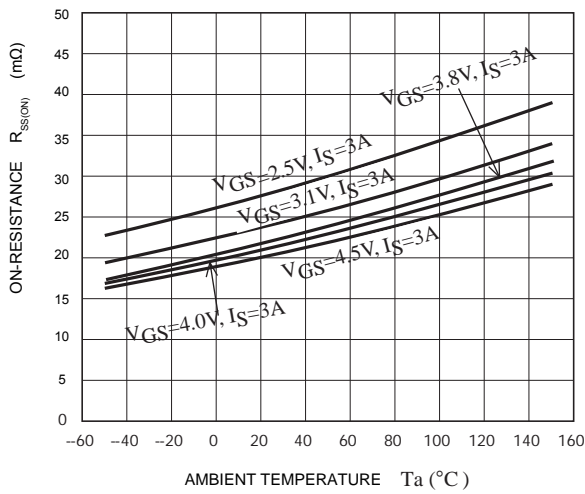
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



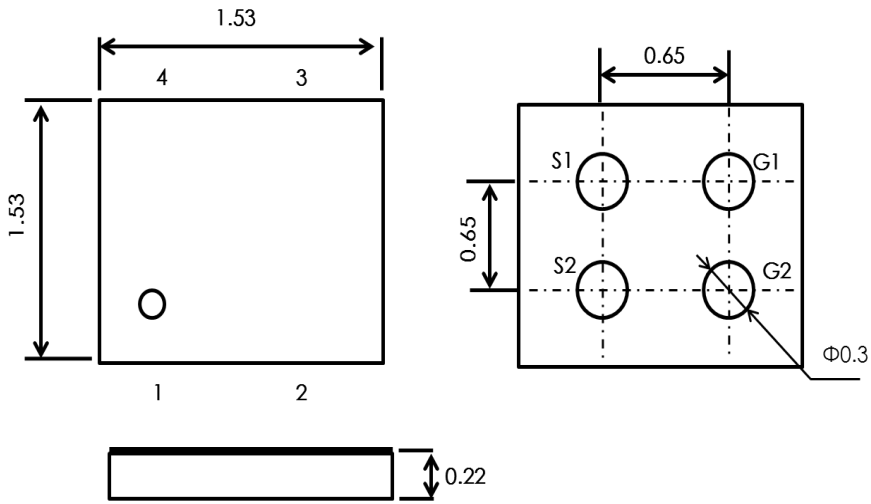
Maximum Safe Operating Area



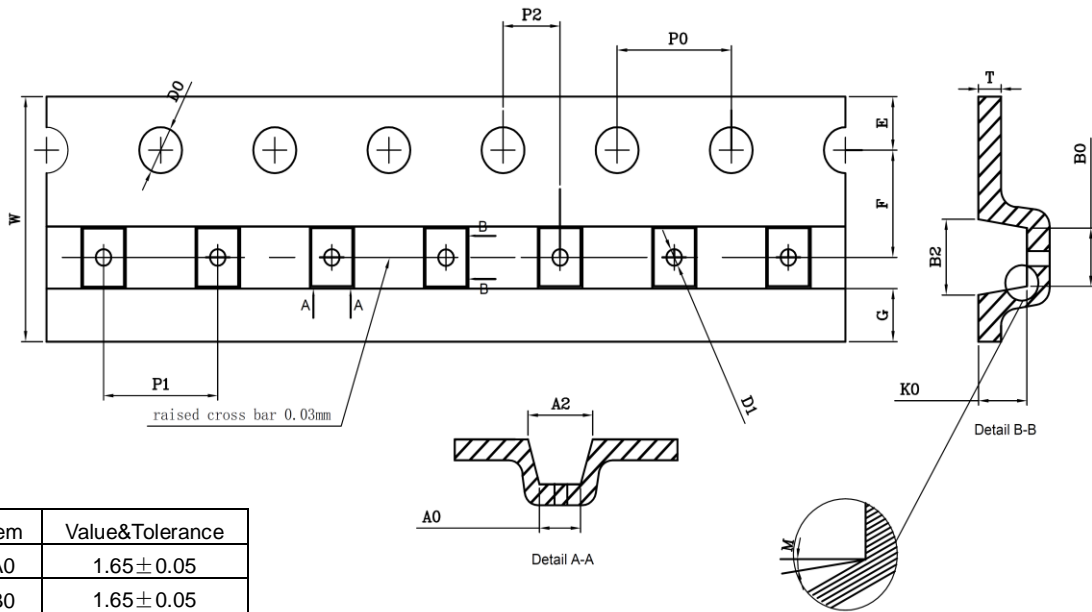
$R_{SS(ON)}$ — T_a



CSPB1515-4 Package Outline Dimensions(Unit:mm)



CSPB1515-4 Tape(Unit:mm)



Item	Value&Tolerance
A0	1.65±0.05
B0	1.65±0.05
K0	0.50±0.05
A2	NA
B2	NA
D0	1.50+0.10/0.00
D1	1.00MIN
P0	4.00TYP
P1	4.00TYP
P2	2.00±0.05
E	1.75±0.10
F	3.50±0.05
G	NA
T	0.20±0.05
W	8.00+0.30/-0.10
M	MAX 3°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)