

### Product Summary

V <sub>(BR)DSS</sub>	R <sub>DS(on)TYP</sub>	I <sub>D</sub>
60V	29mΩ@10V	5.0A
	33mΩ@6V	
	40mΩ@4.5V	

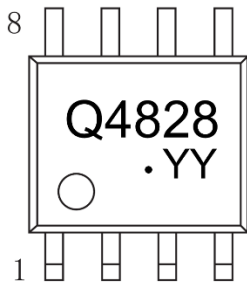
### Feature

- Trench Power MOSFET
- Low R<sub>DS(ON)</sub>
- Low Gate Charge

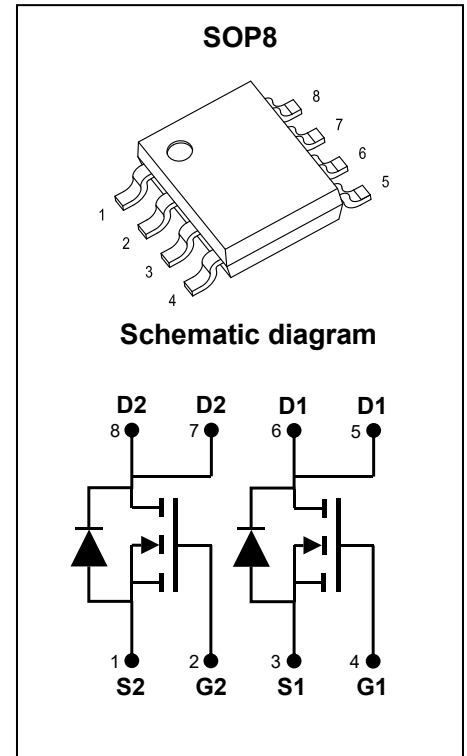
### Application

- PWM Applications
- Load Switch

### MARKING:



Q4828 = Device Code  
 YY = Date Code  
 Solid Dot = Green Device



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	60	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current <sup>1,2</sup>	I <sub>D</sub>	5.0	A
Pulsed Drain Current	I <sub>DM</sub>	20	A
Power Dissipation	P <sub>D</sub>	1.25	W
Thermal Resistance from Junction to Ambient <sup>1,2</sup>	R <sub>θJA</sub>	100	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~ +150	°C

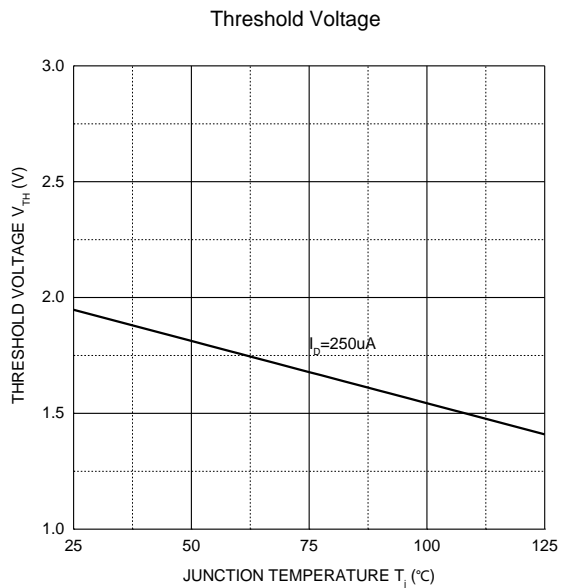
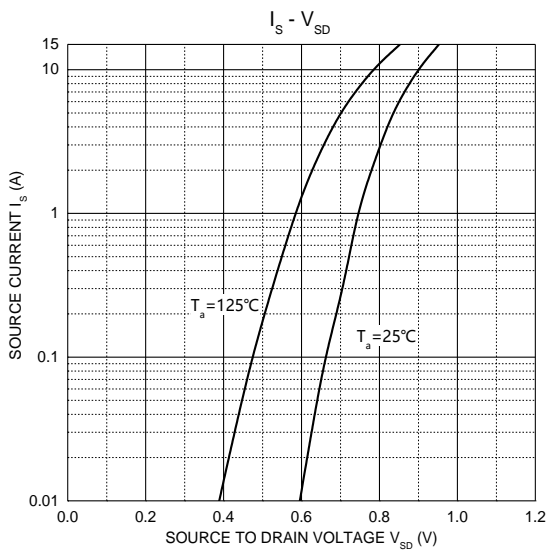
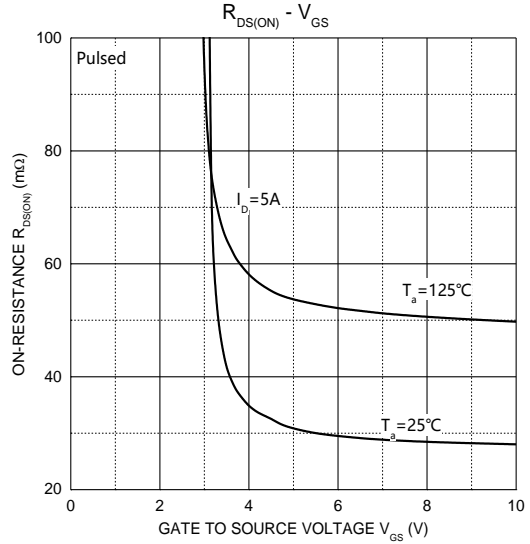
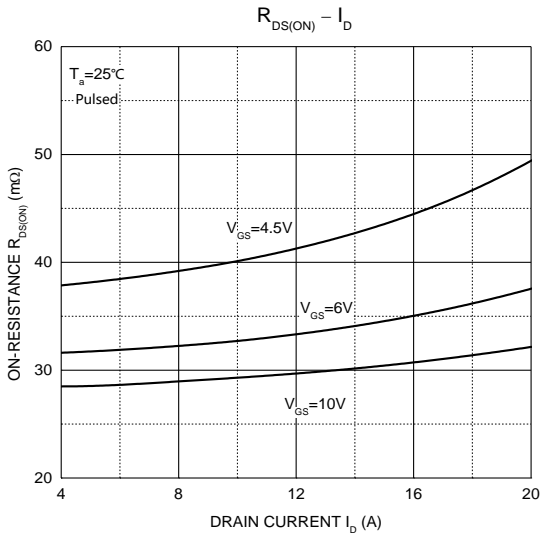
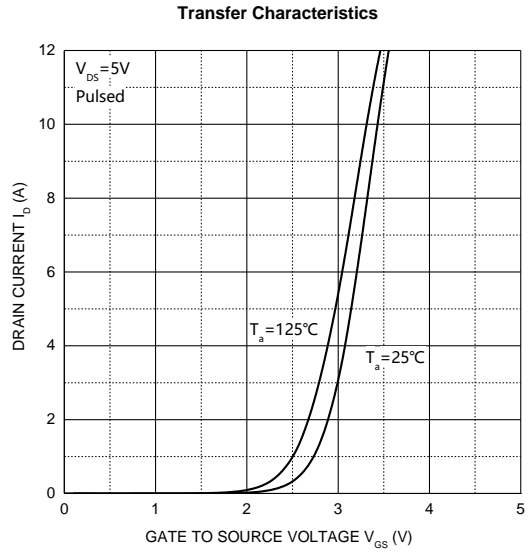
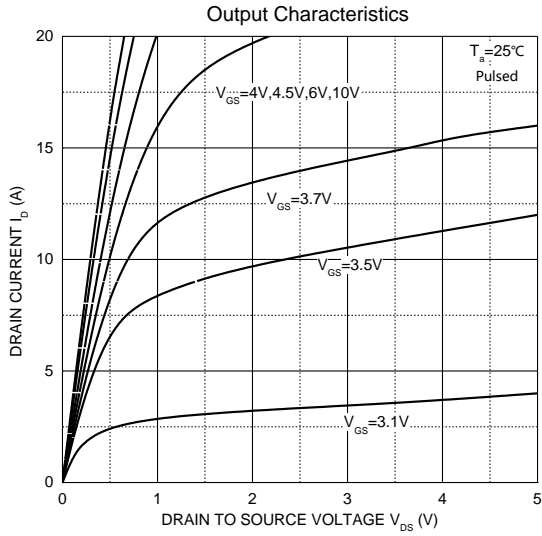
**MOSFET ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Off Characteristics</b>						
Drain-source breakdown voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = 250μA	60			V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> = 60V, V <sub>GS</sub> = 0V			1	μA
Gate-body leakage current	I <sub>GSS</sub>	V <sub>GS</sub> = ±20V, V <sub>DS</sub> = 0V			±100	nA
<b>On Characteristics</b>						
Gate threshold voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250μA	1.0	2.0	3.0	V
Drain-source on-resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> = 10V, I <sub>D</sub> = 4.5A		29	38	mΩ
		V <sub>GS</sub> = 6V, I <sub>D</sub> = 3A		33	43	
		V <sub>GS</sub> = 4.5V, I <sub>D</sub> = 3A		40	60	
Forward transconductance	g <sub>FS</sub>	V <sub>DS</sub> = 5V, I <sub>D</sub> = 4.5A		8		S
<b>Dynamic Characteristics</b>						
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0V, f = 1MHz		950		pF
Output capacitance	C <sub>oss</sub>			61		
Reverse transfer capacitance	C <sub>rss</sub>			53		
<b>Switching Characteristics</b>						
Total gate charge	Q <sub>g</sub>	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 10V, I <sub>D</sub> = 4.5A		9		nC
Gate-source charge	Q <sub>gs</sub>			3.2		
Gate-drain charge	Q <sub>gd</sub>			4.5		
Turn-on delay time	t <sub>d(on)</sub>	V <sub>DD</sub> = 30V, V <sub>GS</sub> = 10V, R <sub>G</sub> = 3Ω, R <sub>L</sub> = 6.7Ω		9.4		ns
Turn-on rise time	t <sub>r</sub>			4.6		
Turn-off delay time	t <sub>d(off)</sub>			20		
Turn-off fall time	t <sub>f</sub>			4		
<b>Source-Drain Diode Characteristics</b>						
Continuous Source Current	I <sub>S</sub>				4.5	A
Pulsed Source Current	I <sub>SM</sub>				20	
Diode Forward Voltage	V <sub>SD</sub>	V <sub>GS</sub> = 0V, I <sub>S</sub> = 1A, T <sub>J</sub> = 25°C			1.2	V

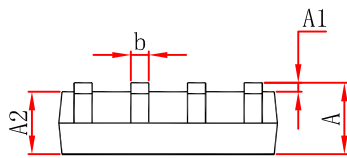
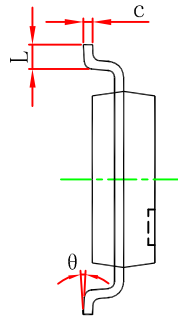
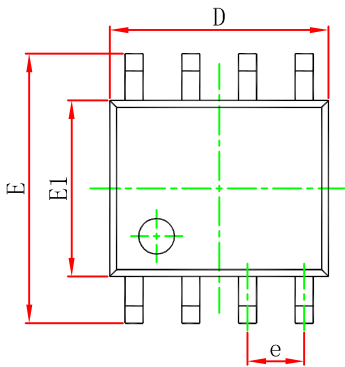
**Notes :**

1. R<sub>θJA</sub> is measured with the device mounted on 1 in<sup>2</sup> FR4 board with 1oz. single side copper, in a still air environment with T<sub>A</sub> = 25°C.
2. R<sub>θJA</sub> is measured in the steady state
3. Pulse test : Pulse width ≤ 380μs, duty cycle ≤ 2%.

**Typical Electrical and Thermal Characteristics**



## SOP8 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
$\theta$	0°	8°	0°	8°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)