
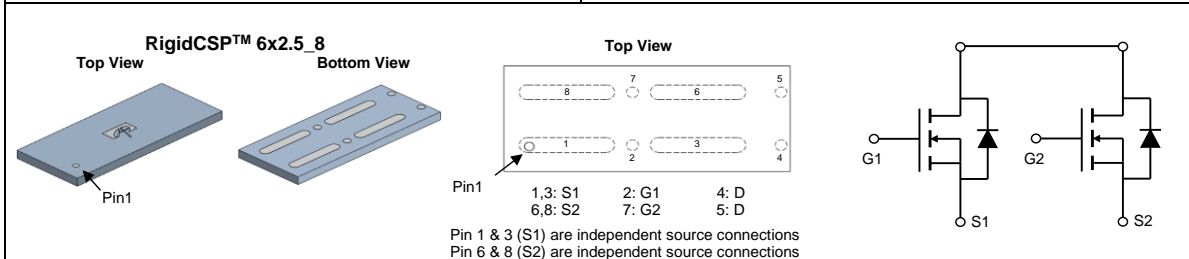


<p>General Description</p> <ul style="list-style-type: none"> • Trench Power MOSFET technology • Low $R_{SS(ON)}$ • Common drain configuration for design simplicity • RoHS and Halogen-Free Compliant <p>Applications</p> <ul style="list-style-type: none"> • Battery protection switch • Mobile device battery charging and discharging 	<p>Product Summary</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">V_{SS}</td> <td style="text-align: right;">30V</td> </tr> <tr> <td>$R_{SS(ON)}$ (at $V_{GS}=10V$)</td> <td style="text-align: right;">< 2.6mΩ</td> </tr> <tr> <td>$R_{SS(ON)}$ (at $V_{GS}=8V$)</td> <td style="text-align: right;">< 2.9mΩ</td> </tr> <tr> <td>$R_{SS(ON)}$ (at $V_{GS}=4.5V$)</td> <td style="text-align: right;">< 4.2mΩ</td> </tr> </table> <p>Typical ESD Level HBM Class 2</p> <div style="text-align: right;">  </div>	V_{SS}	30V	$R_{SS(ON)}$ (at $V_{GS}=10V$)	< 2.6m Ω	$R_{SS(ON)}$ (at $V_{GS}=8V$)	< 2.9m Ω	$R_{SS(ON)}$ (at $V_{GS}=4.5V$)	< 4.2m Ω
V_{SS}	30V								
$R_{SS(ON)}$ (at $V_{GS}=10V$)	< 2.6m Ω								
$R_{SS(ON)}$ (at $V_{GS}=8V$)	< 2.9m Ω								
$R_{SS(ON)}$ (at $V_{GS}=4.5V$)	< 4.2m Ω								



Orderable Part Number	Package Type	Form	Minimum Order Quantity
AOCR32326	RigidCSP™ 6x2.5_8	Tape & Reel	3000

Absolute Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Rating	Units
Source-Source Voltage	V_{SS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Source Current (DC) ^{Note1}	I_S	28	A
Source Current (Pulse) ^{Note2}	I_{SM}	130	
Power Dissipation ^{Note1}	P_D	2.75	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Typical	Units
Maximum Junction-to-Ambient	$R_{\theta JA}$	35	$^\circ\text{C/W}$
Maximum Junction-to-Ambient		45	$^\circ\text{C/W}$

Note 1. I_S rated value is based on bare silicon. Mounted on 70mmx70mm FR-4 board.
Note 2. PW < 10 μs pulses, duty cycle 1% max.

Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
STATIC PARAMETERS						
BV _{SSS}	Source-Source Breakdown Voltage	I _S =250μA, V _{GS} =0V Test Circuit 6	30			V
I _{SSS}	Zero Gate Voltage Source Current	V _{SS} =30V, V _{GS} =0V Test Circuit 1 T _J =55°C			1 5	μA
I _{GSS}	Gate leakage current	V _{SS} =0V, V _{GS} =±20V Test Circuit 2			±100	nA
V _{GS(th)}	Gate Threshold Voltage	V _{SS} =V _{GS} , I _S =250μA Test Circuit 3	1.3	1.8	2.3	V
R _{SS(ON)}	Static Source to Source On-Resistance	V _{GS} =10V, I _S =10A Test Circuit 4	1.4	2.1	2.6	mΩ
		T _J =125°C		3.1	3.8	
		V _{GS} =8V, I _S =10A Test Circuit 4	1.5	2.2	2.9	mΩ
		V _{GS} =4.5V, I _S =10A Test Circuit 4	2	2.9	4.2	mΩ
g _{FS}	Forward Transconductance	V _{SS} =5V, I _S =10A Test Circuit 3		80		S
V _{FSS}	Forward Source to Source Voltage	I _S =1A, V _{GS} =0V Test Circuit 5		0.72	1	V
DYNAMIC PARAMETERS						
R _g	Gate resistance	f=1MHz		1.0		Ω
SWITCHING PARAMETERS						
Q _g	Total Gate Charge	V _{G1S1} =10V, V _{SS} =15V, I _S =10A		142		nC
t _{D(on)}	Turn-On DelayTime	V _{G1S1} =10V, V _{SS} =15V, R _L =1.5Ω, R _{GEN} =3Ω Test Circuit8		20		ns
t _r	Turn-On Rise Time			80		ns
t _{D(off)}	Turn-Off DelayTime			85		ns
t _f	Turn-Off Fall Time			48		ns

APPLICATIONS OR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS ARE NOT AUTHORIZED. AOS DOES NOT ASSUME ANY LIABILITY ARISING OUT OF SUCH APPLICATIONS OR USES OF ITS PRODUCTS. AOS RESERVES THE RIGHT TO IMPROVE PRODUCT DESIGN, FUNCTIONS AND RELIABILITY WITHOUT NOTICE.

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

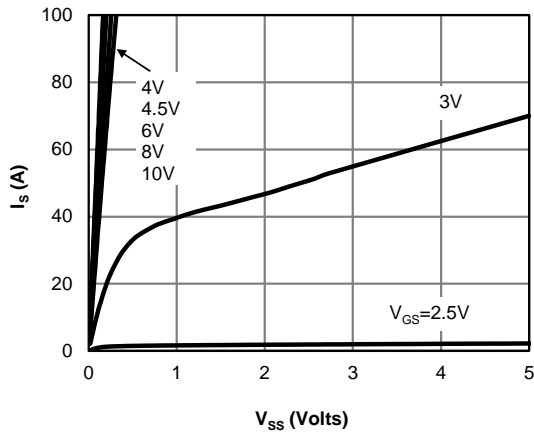


Figure 1: On-Region Characteristics

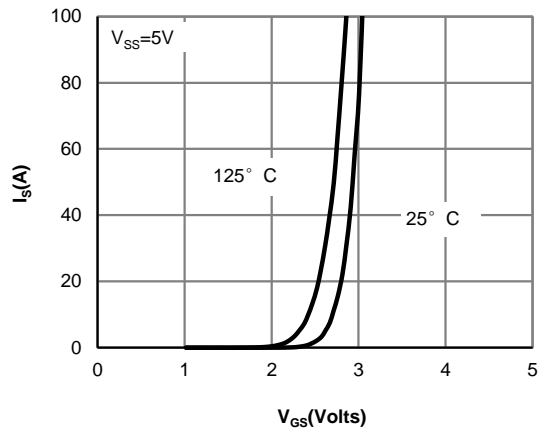


Figure 2: Transfer Characteristics

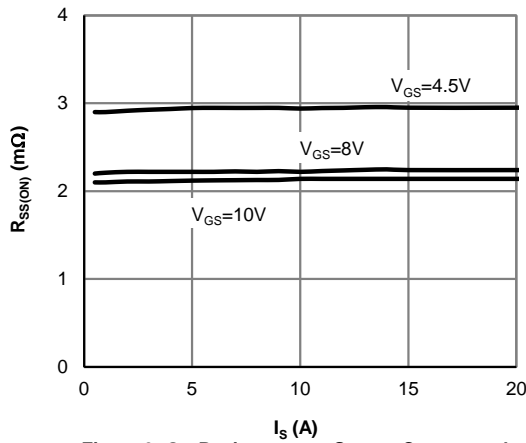


Figure 3: On-Resistance vs. Source Current and Gate Voltage

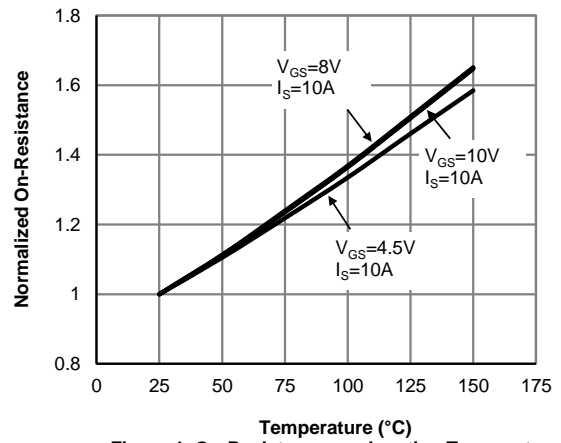


Figure 4: On-Resistance vs. Junction Temperature

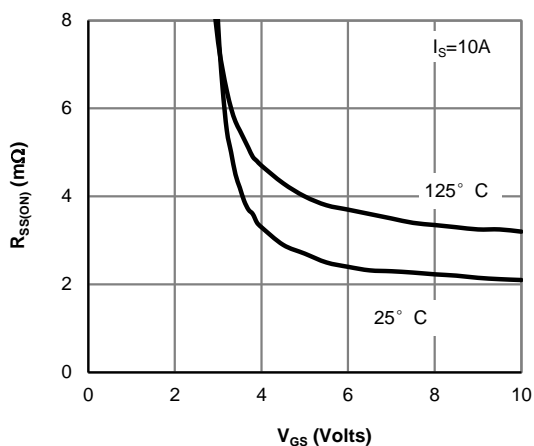


Figure 5: On-Resistance vs. Gate-Source Voltage

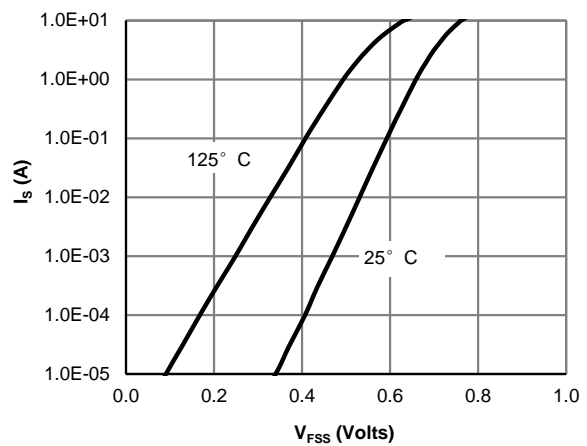


Figure 6: Forward Source to Source Characteristics

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

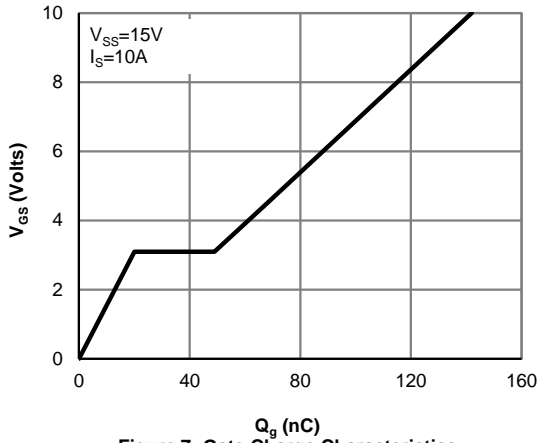


Figure 7: Gate-Charge Characteristics

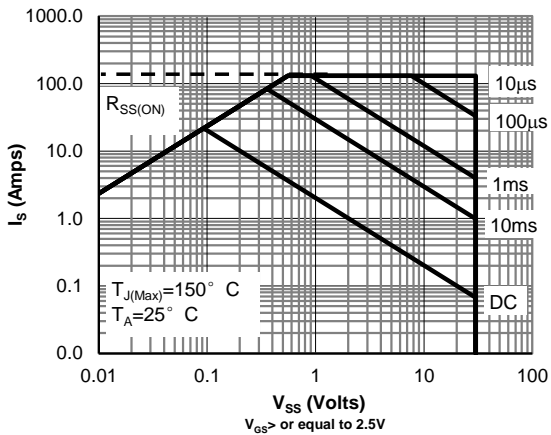


Figure 8: Maximum Forward Biased Safe Operating Area (Note1)

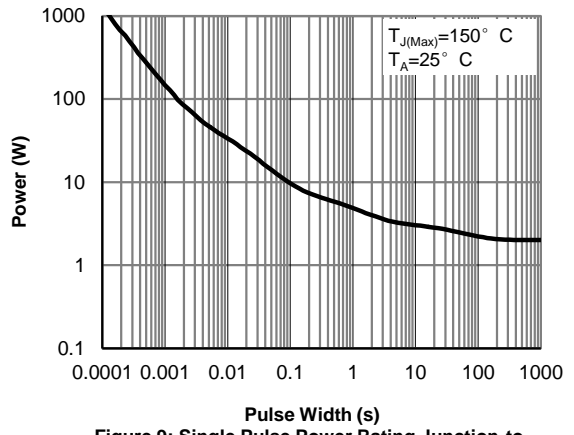


Figure 9: Single Pulse Power Rating Junction-to-Ambient (Note1)

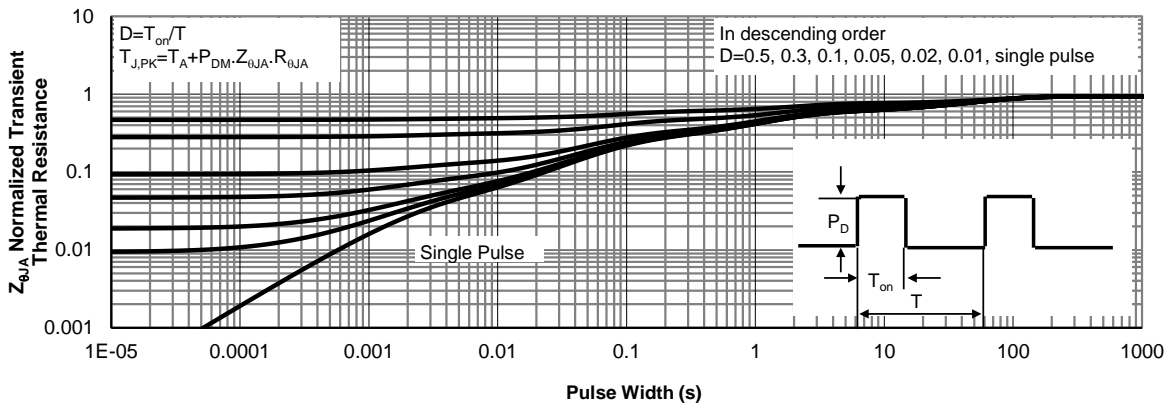
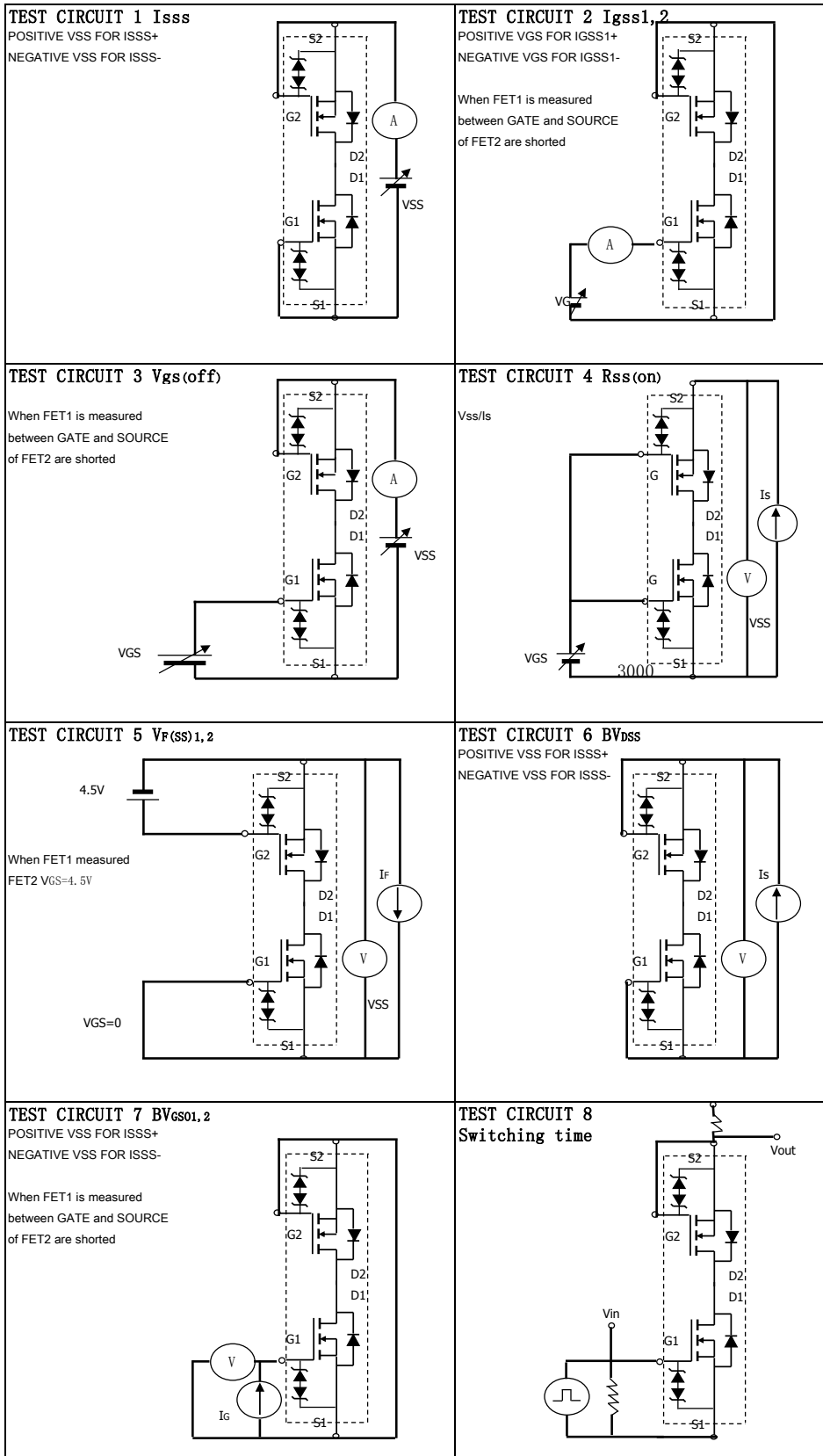
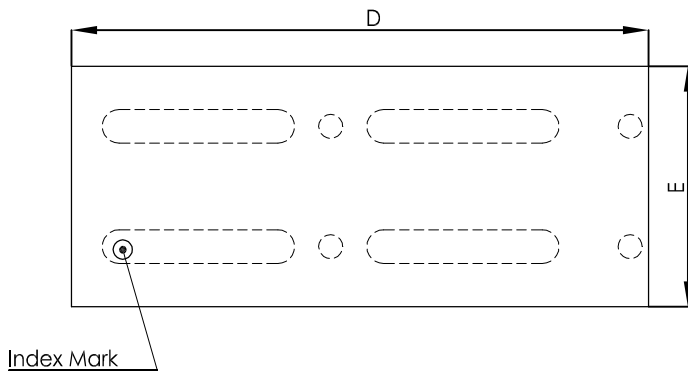


Figure 10: Normalized Maximum Transient Thermal Impedance (Note1)

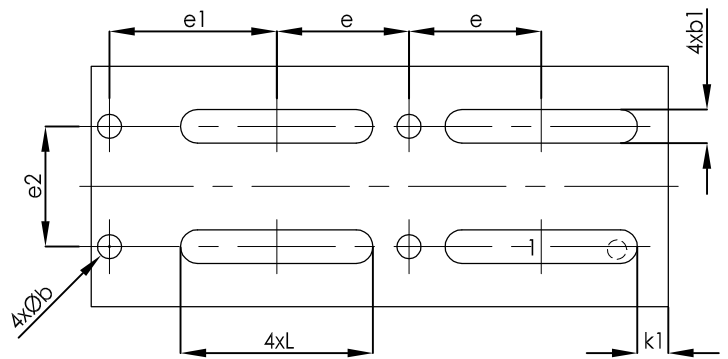




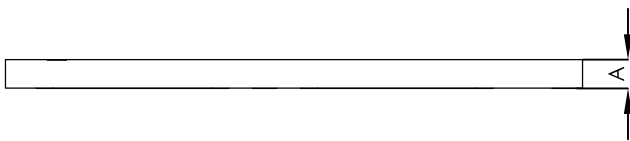
RigidCSP6x2.5_8 PACKAGE OUTLINE



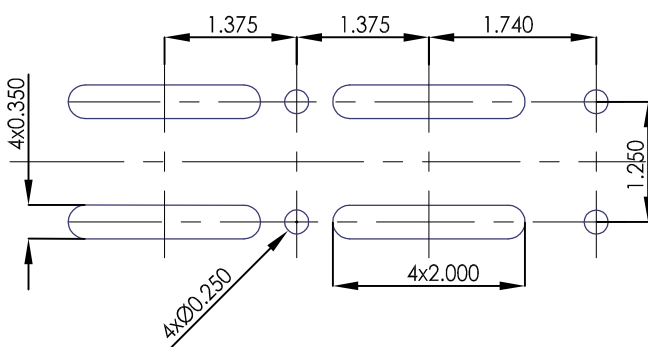
TOP VIEW



BOTTOM VIEW



SIDE VIEW



RECOMMENDED LAND PATTERN

SYMBOLS	DIM. IN MM			DIM. IN INCH		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	0.270	0.300	0.330	---	0.012	0.013
b	0.220	0.250	0.280	0.009	0.010	0.011
b1	0.320	0.350	0.380	0.013	0.014	0.015
D	5.970	6.000	6.030	0.235	0.236	0.237
E	2.470	2.500	2.530	0.097	0.098	0.100
e	1.375BSC.			0.054BSC.		
e1	1.740BSC.			0.069BSC.		
e2	1.250BSC.			0.049BSC.		
K1	---	0.320	---	---	0.013	---
L	1.970	2.000	2.030	0.078	0.079	0.080

NOTE:

1. CONTROLLED DIMENSIONS ARE IN MILLIMETERS.
2. TOP VIEW IS THE VIEW OF TOP SURFACE OF THE PART HAVING INDEX AND PART NUMBER MARKING.

单击下面可查看定价，库存，交付和生命周期等信息

[>>AOS\(万代\)](#)