

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic			Symbol	Value	Unit
Drain-Source Voltage			V _{DSS}	60	V
Drain-Gate Voltage R _{GS} ≤ 1.0MΩ			V _{DGR}	60	V
Gate-Source Voltage	Continuous		V _{GSS}	±20	V
	Pulsed		V _{GSS}	±40	V
Continuous Drain Current (Note 7) V _{GS} = 5V	Steady State	T _A = +25°C	I _D	0.23	A
		T _A = +70°C		0.18	
		T _A = +100°C		0.14	
Maximum Continuous Body Diode Forward Current (Note 7)			I _S	0.53	A
Pulsed Drain Current (10μs Pulse, Duty Cycle = 1%)			I _{DM}	0.8	A

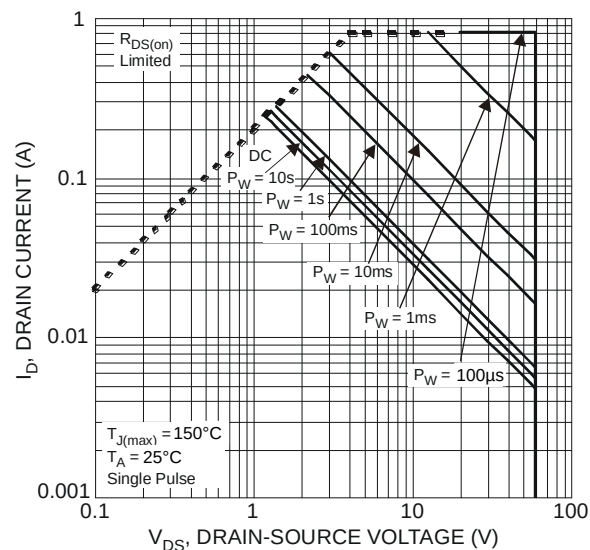
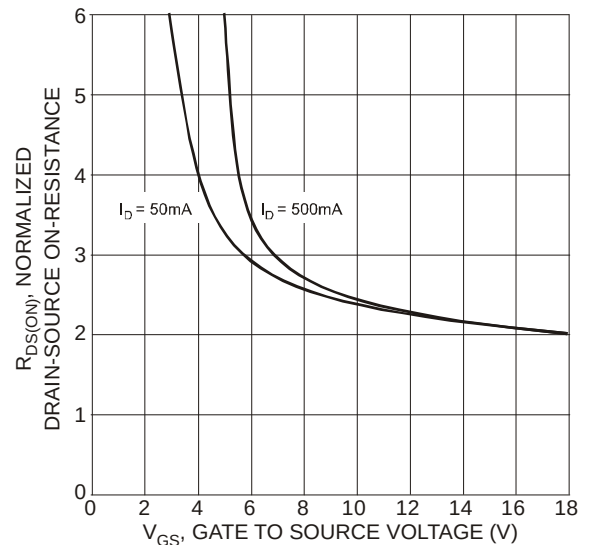
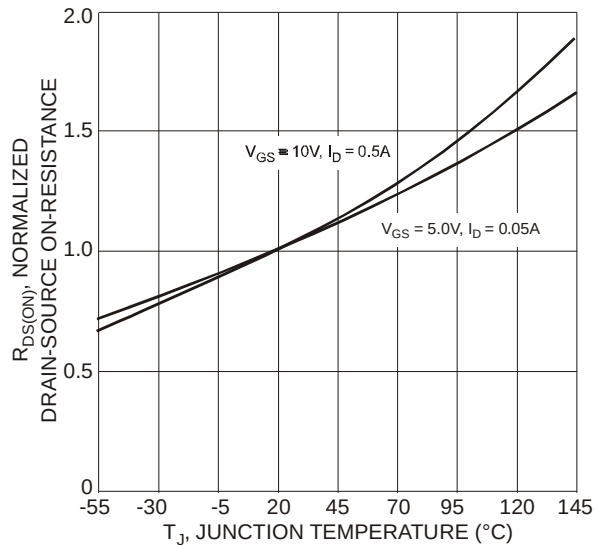
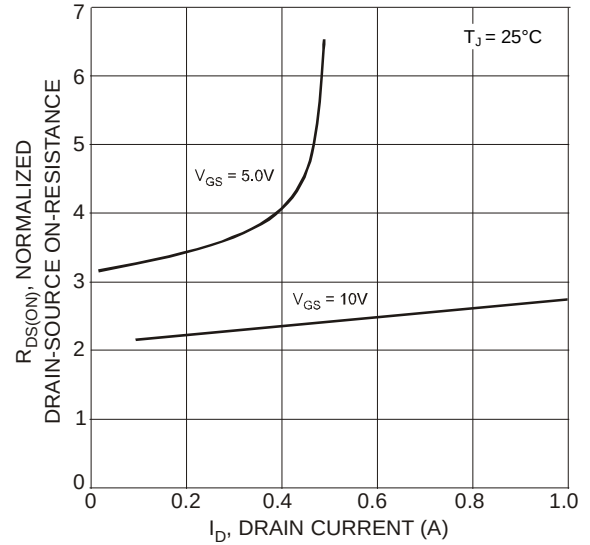
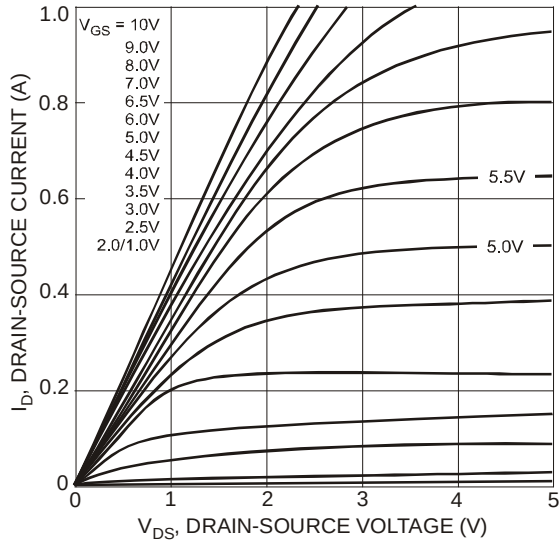
Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Total Power Dissipation (Note 6)	T _A = +25°C	P _D	0.31	W
	T _A = +70°C		0.2	
	T _A = +100°C		0.12	
Thermal Resistance, Junction to Ambient (Note 6)	Steady State	R _{θJA}	410	°C/W
Total Power Dissipation (Note 7)	T _A = +25°C	P _D	0.4	W
	T _A = +70°C		0.25	
	T _A = +100°C		0.15	
Thermal Resistance, Junction to Ambient (Note 7)	Steady State	R _{θJA}	318	°C/W
Thermal Resistance, Junction to Case (Note 7)	Steady State	R _{θJC}	135	°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 8)						
Drain-Source Breakdown Voltage	BV _{DSS}	60	70	—	V	V _{GS} = 0V, I _D = 10μA
Zero Gate Voltage Drain Current	@ T _C = +25°C @ T _C = +125°C	I _{DSS}	—	—	1.0 500	μA V _{DS} = 60V, V _{GS} = 0V
Gate-Body Leakage		I _{GSS}	—	—	±10	nA V _{GS} = ±20V, V _{DS} = 0V
ON CHARACTERISTICS (Note 8)						
Gate Threshold Voltage		V _{GS(TH)}	1.0	—	2.0	V V _{DS} = V _{GS} , I _D = 250μA
Static Drain-Source On-Resistance	@ T _J = +25°C @ T _J = +125°C	R _{DS(ON)}	—	3.2 4.4	7.5 13.5	Ω V _{GS} = 5.0V, I _D = 0.05A V _{GS} = 10V, I _D = 0.5A
On-State Drain Current		I _{D(ON)}	0.5	1.0	—	A V _{GS} = 10V, V _{DS} = 7.5V
Forward Transconductance		g _{FS}	80	—	—	mS V _{DS} = 10V, I _D = 0.2A
Diode Forward Voltage		V _{SD}	—	0.78	1.5	V V _{GS} = 0V, I _S = 115mA
DYNAMIC CHARACTERISTICS (Note 9)						
Input Capacitance		C _{iss}	—	22	50	pF
Output Capacitance		C _{oss}	—	11	25	pF
Reverse Transfer Capacitance		C _{rss}	—	2.0	5.0	pF
SWITCHING CHARACTERISTICS (Note 9)						
Turn-On Delay Time		t _{D(ON)}	—	7.0	20	ns V _{DD} = 30V, I _D = 0.2A, R _L = 150Ω, V _{GEN} = 10V, R _{GEN} = 25Ω
Turn-Off Delay Time		t _{D(OFF)}	—	11.0	20	

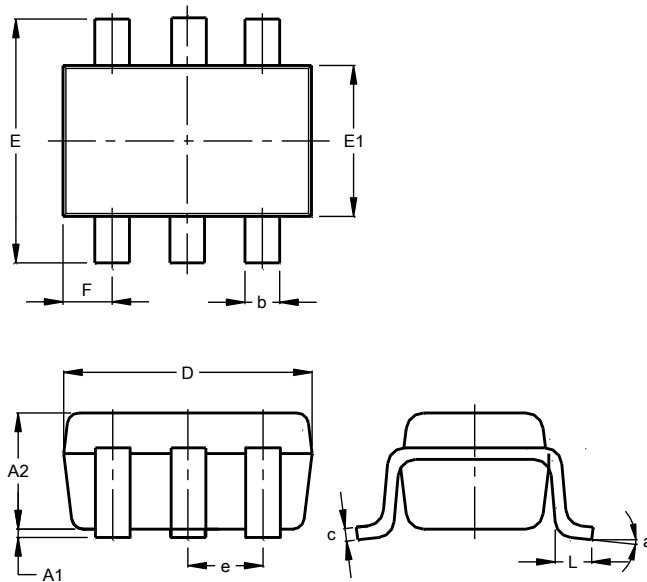
- Notes:
6. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.
 7. Device mounted on FR-4 substrate PC board, 2oz copper, with thermal vias to bottom layer 1inch square copper plate.
 8. Short duration pulse test used to minimize self-heating effect.
 9. Guaranteed by design. Not subject to product testing.



Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

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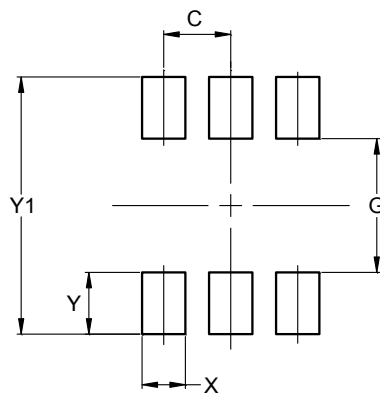


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Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	1.00
b	0.10	0.30	0.25
c	0.10	0.22	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
F	0.40	0.45	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

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Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.420
Y	0.600
Y1	2.500

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