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

Characteristic	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	200	V
Gate-Source Voltage	V_{GSS}	±20	V
Continuous Drain Current	I_D	120	mA
Pulsed Drain Current	I_{DM}	2	A

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

Characteristic		Symbol	Value	Unit
Power Dissipation	(Note 5)	P_D	500	mW
Thermal Resistance, Junction to Ambient	(Note 5)	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Leads	(Note 6)	$R_{\theta JL}$	71	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

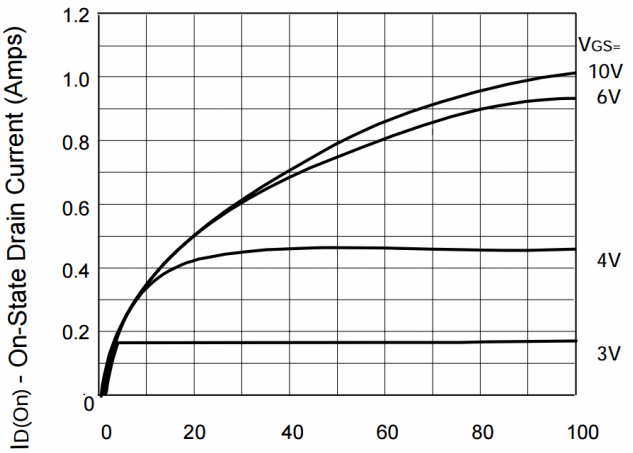
Notes: 5. For a through-hole device mounted on the minimum recommended pad layout with 12mm lead length from the bottom of package to the single-sided FR-4 PCB; device is measured under still air conditions whilst operating in a steady-state.
6. Thermal resistance from junction to solder-point at the seating plane (2.5mm from the bottom of package along the drain lead).

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

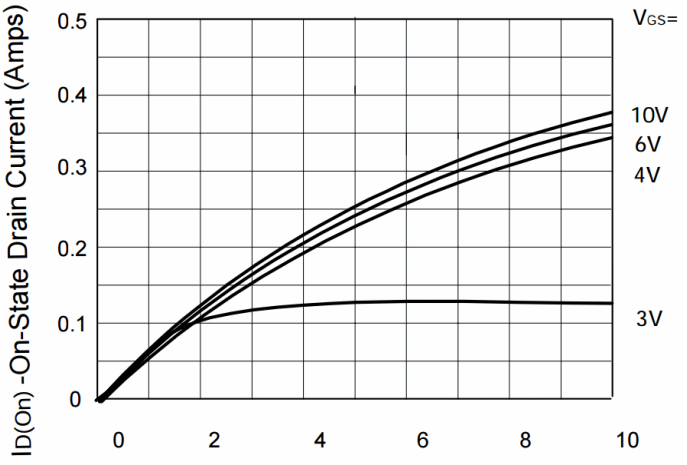
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	200	230	—	V	I_D = 100µA, V_{GS} = 0V
Zero Gate Voltage Drain Current	I_{DSS}	—	—	30	nA	V_{DS} = 130V, V_{GS} = 0V
Drain Cut-Off Current	I_{DSX}	—	—	1	µA	V_{DS} = 70V, V_{GS} = 0.2V
Gate-Source Leakage	I_{GSS}	—	—	±10	nA	V_{GS} = ±15V, V_{DS} = 0V
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	1.0	—	3.0	V	I_D = 1mA, V_{DS} = V_{GS}
Static Drain-Source On-Resistance (Note 7)	$R_{DS(ON)}$	—	15	23	Ω	V_{GS} = 2.6V, I_D = 25mA
			—	30		V_{GS} = 5V, I_D = 100mA
Forward Transconductance (Notes 7 & 9)	g_{fs}	100	—	—	mS	V_{DS} = 25V, I_D = 250mA
DYNAMIC CHARACTERISTICS (Note 9)						
Input Capacitance	C_{iss}	—	—	85	pF	V_{DS} = 25V, V_{GS} = 0V f = 1.0MHz
Output Capacitance	C_{oss}	—	—	20		
Reverse Transfer Capacitance	C_{rss}	—	—	7		
Turn-On Delay Time (Note 8)	$t_{D(ON)}$	—	—	7	ns	V_{DD} = 25V, I_D = 250mA
Turn-On Rise Time (Note 8)	t_R	—	—	8		
Turn-Off Delay Time (Note 8)	$t_{D(OFF)}$	—	—	16		
Turn-Off Fall Time (Note 8)	t_F	—	—	8		

Notes: 7. Measured under pulsed conditions. Pulse width ≤ 300µs. Duty cycle ≤ 2%.
8. Switching characteristics are independent of operating junction temperature. Switching times are measured with 50Ω source impedance and <5ns rise time on a pulse generator.
9. For design aid only, not subject to production testing.

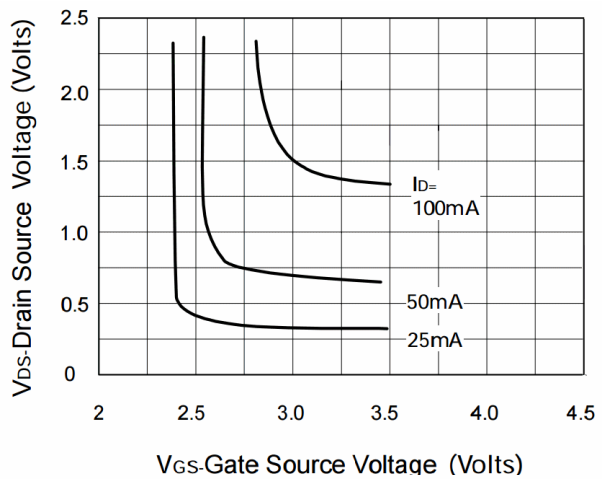
Typical Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)



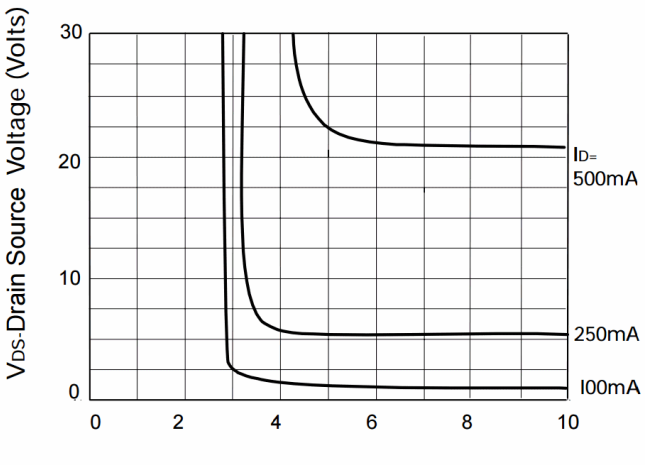
Output Characteristics



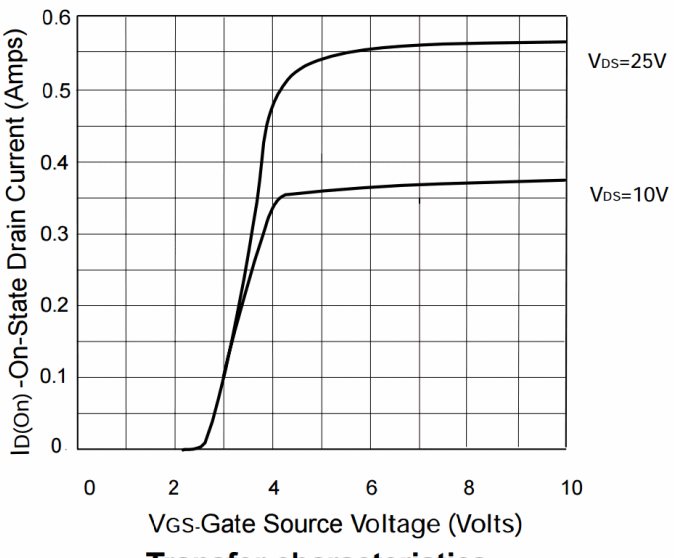
Saturation Characteristics



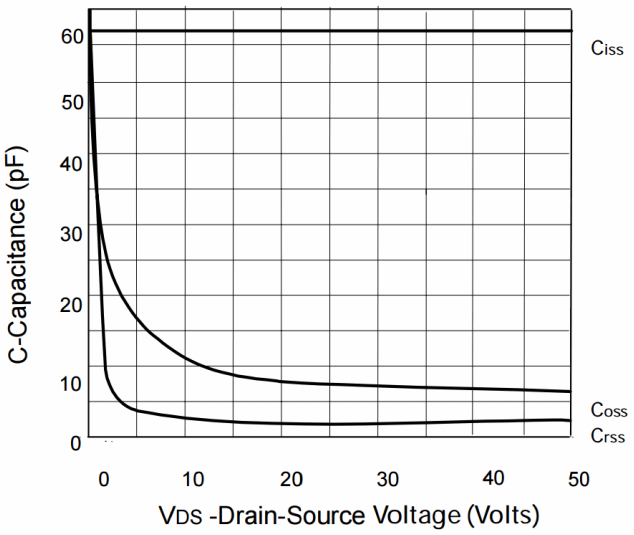
Voltage Saturation Characteristics



Voltage Saturation Characteristics



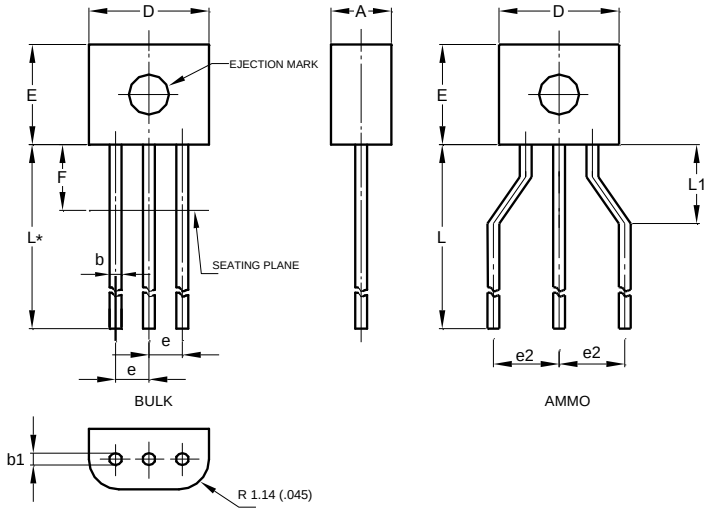
Transfer characteristics



Capacitance v drain-source voltage

Package Outline Dimensions

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



E-Line			
Dim	**Min**	**Max**	**Typ**
A	2.16	2.41	–
b	0.41	0.495	–
b1	0.41	0.495	–
D	4.37	4.77	–
E	3.61	4.01	–
e	–	–	1.27
e2	–	–	2.54
F	–	2.50	–
L	13.00	13.97	–
L1	2.50	3.50	–
All Dimensions in mm			

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