

Plastic-Encapsulate MOSFETs

Dual P-Channel Power MOSFET

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
-20V	520mΩ@-4.5V	-0.66A
	700mΩ@-2.5V	
	950mΩ (TYP) @-1.8V	

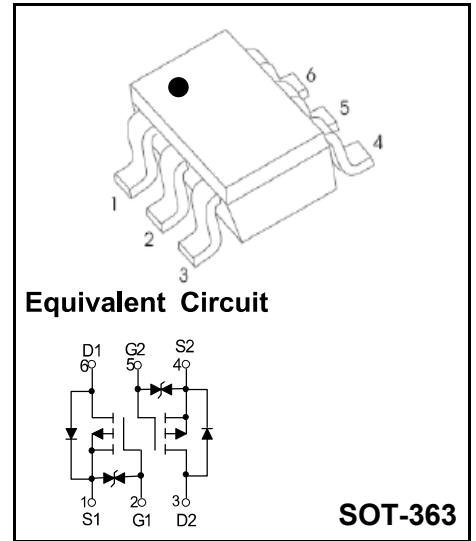
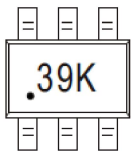
FEATURE

- High-Side Switching
- Low On-Resistance
- Low Threshold
- Fast Switching Speed

APPLICATION

- Drivers: Relays, Solenoids, Lamps, Hammers, Displays, Memories
- Battery Operated Systems
- Power Supply Converter Circuits
- Load/Power Switching Cell Phones, Pagers

MARKING



Maximum ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source voltage	V_{DSS}	-20	V
Typical Gate-Source Voltage	V_{GS}	±12	
Drain Current-Continuous	$I_{D(DC)}$	-0.66	A
Drain Current -Pulsed(note1)	$I_{DM(pulse)}$	-2.64	
Power Dissipation (note 2)	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	°C/W
Storage Temperature	T_j	150	°C
Junction Temperature	T_{stg}	-55 ~+150	

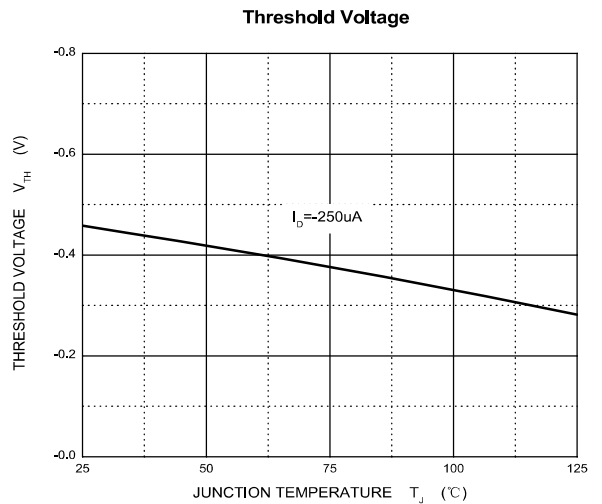
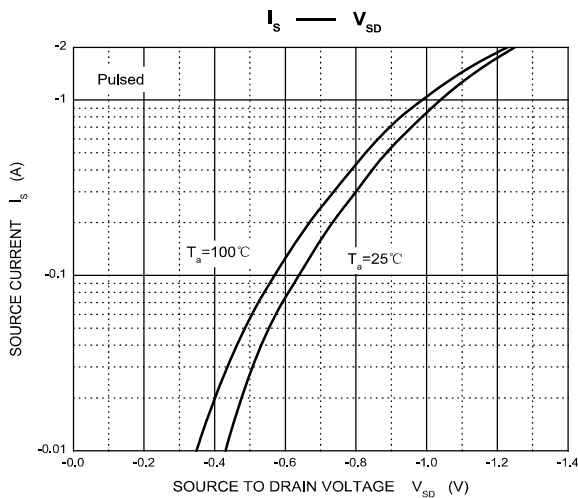
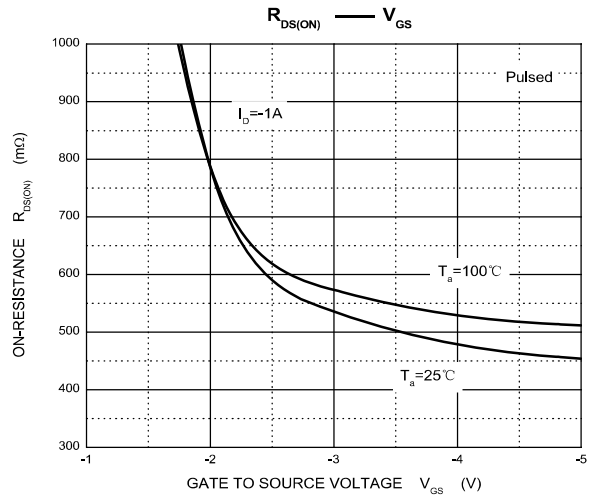
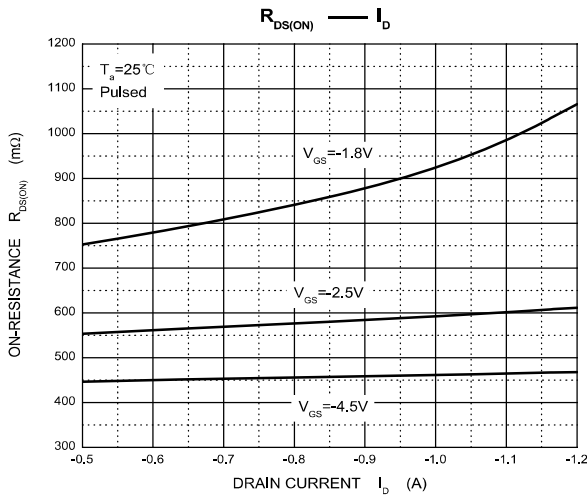
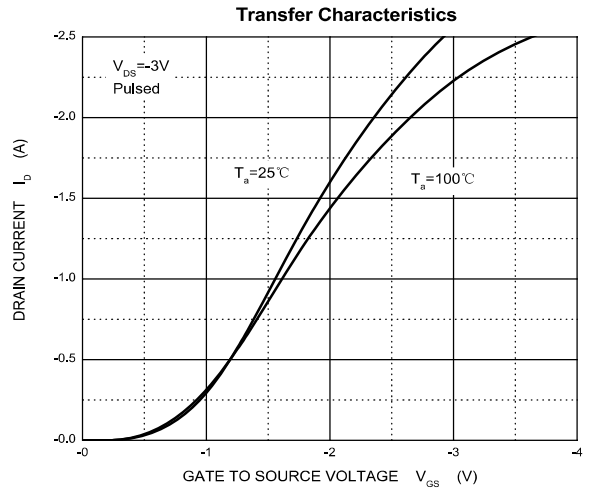
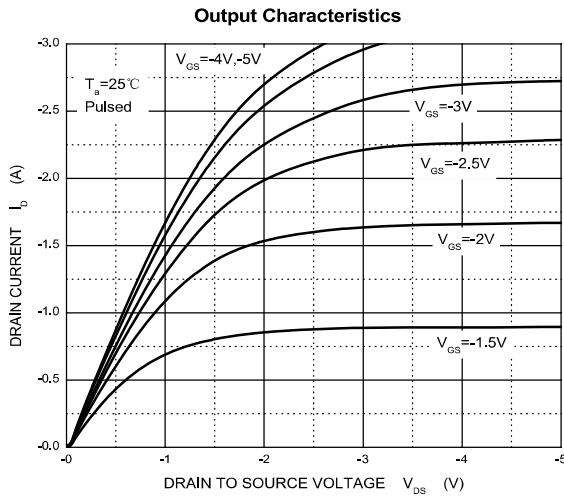
MOSFET ELECTRICAL CHARACTERISTICS
T_a=25 °C unless otherwise specified

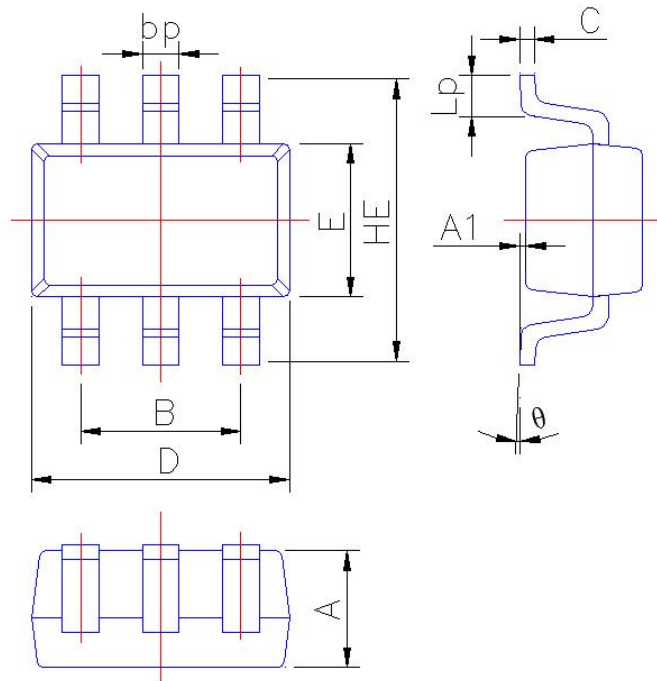
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
On/Off States						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = -250μA	-20			V
Gate-Threshold Voltage(note 3)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-0.35	-0.45	-1.1	
Gate-Body Leakage Current	I _{GSS}	V _{DS} = 0V, V _{GS} = ±10V			±20	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -20V, V _{GS} = 0V			-1	μA
Drain-Source On-State Resistance(note 3)	R _{DS(on)}	V _{GS} = -4.5V, I _D = -1A		430	520	mΩ
		V _{GS} = -2.5V, I _D = -800mA		624	700	
		V _{GS} = -1.8V, I _D = -500mA		950		
Forward Transconductance	g _{FS}	V _{DS} = -10V, I _D = -540mA	0.8			S
Dynamic Characteristics(note 4)						
Input Capacitance	C _{ISS}	V _{DS} = -16V, V _{GS} = 0V, f = 1MHz			170	pF
Output Capacitance	C _{OSS}				25	
Reverse Transfer Capacitance	C _{rss}				15	
Switching Times (note 4)						
Turn-On Delay Time	t _{d(on)}	V _{DD} = -10V, I _D = -200mA, V _{GS} = -4.5V, R _G = 10Ω		9		ns
Rise Time	t _r			5.8		
Turn-Off Delay Time	t _{d(off)}			32.7		
Fall Time	t _f			20.3		
Drain-Source Diode Characteristics						
Drain-Source Diode Forward Voltage (note 3)	V _{SD}	I _S = -0.5A, V _{GS} = 0V			-1.2	V

Notes:

1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. This test is performed with no heat sink at T_a=25°C.
3. Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 0.5%.
4. These parameters have no way to verify.

Typical Characteristics





Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-363	Tape/Reel, 7" reel	3000	EIA-481-1