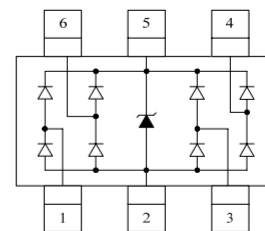
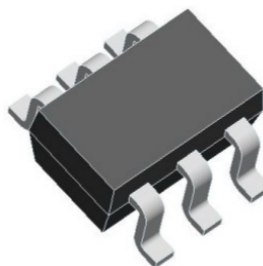


■ Features

- $V_{DS} (V) \approx -30V$
- $I_D \approx -5 A (V_{GS} \approx -10V)$
- $R_{DS(ON)} < 47m\Omega (V_{GS} \approx -10V)$
- $R_{DS(ON)} < 64m\Omega (V_{GS} \approx -4.5V)$
- $R_{DS(ON)} < 85m\Omega (V_{GS} \approx -2.5V)$

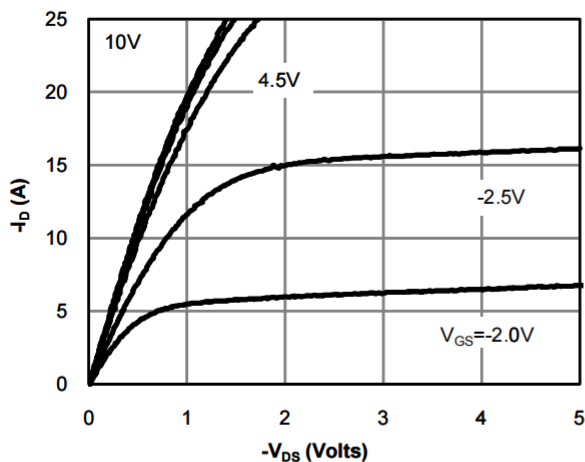
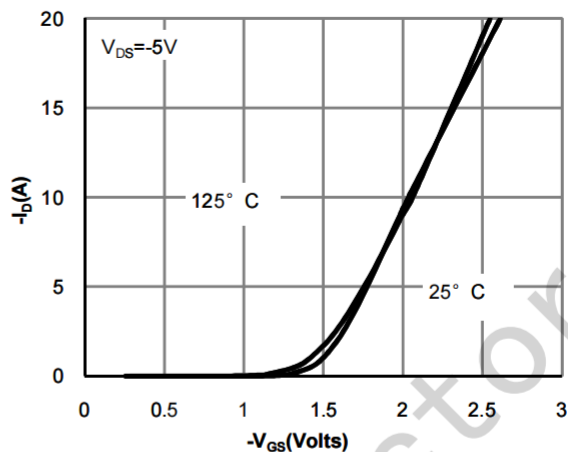
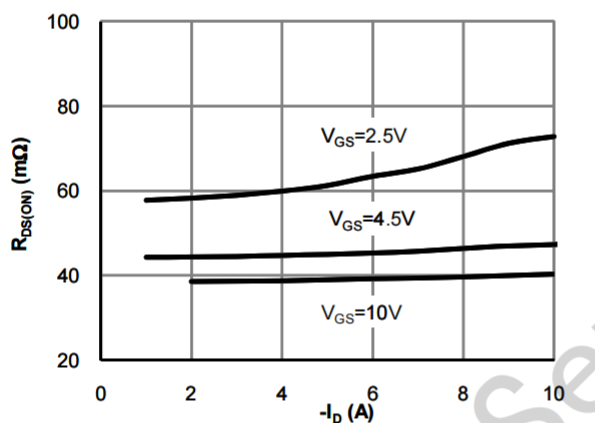
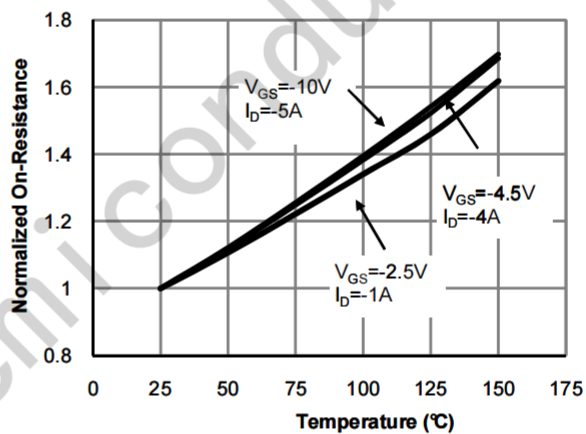
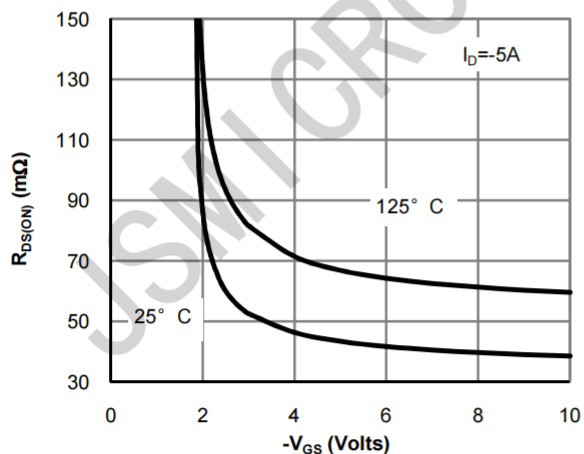
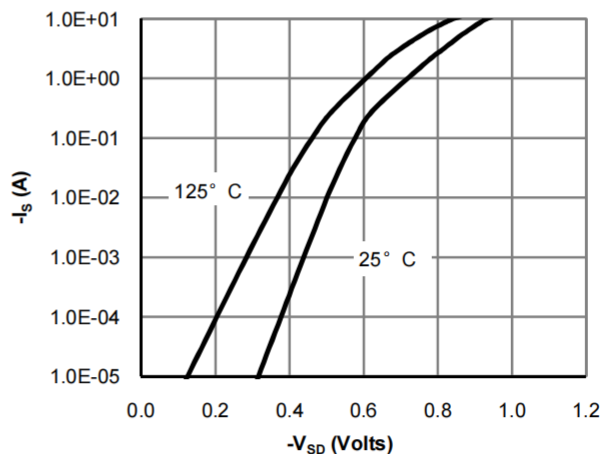

■ Absolute Maximum Ratings $T_a = 25^\circ C$

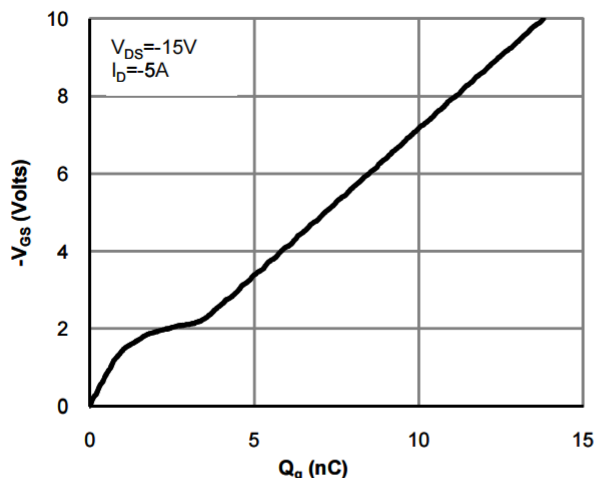
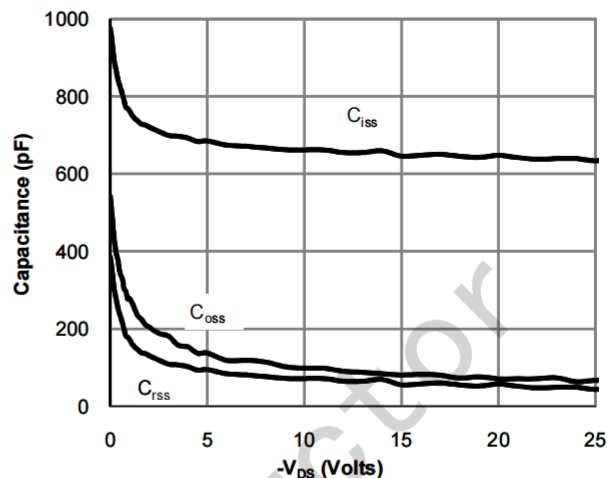
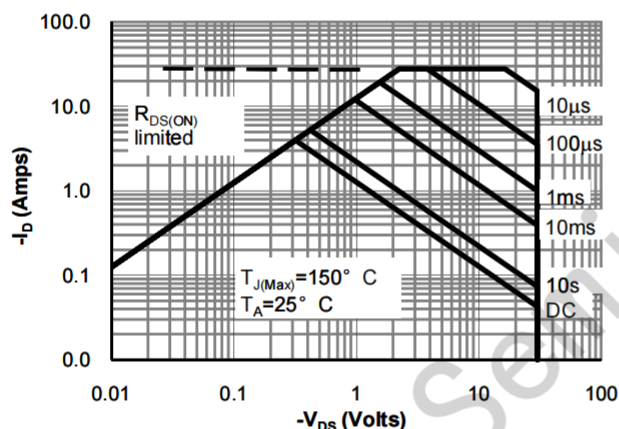
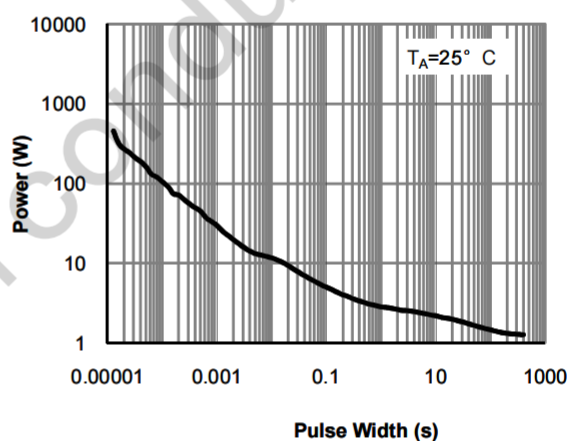
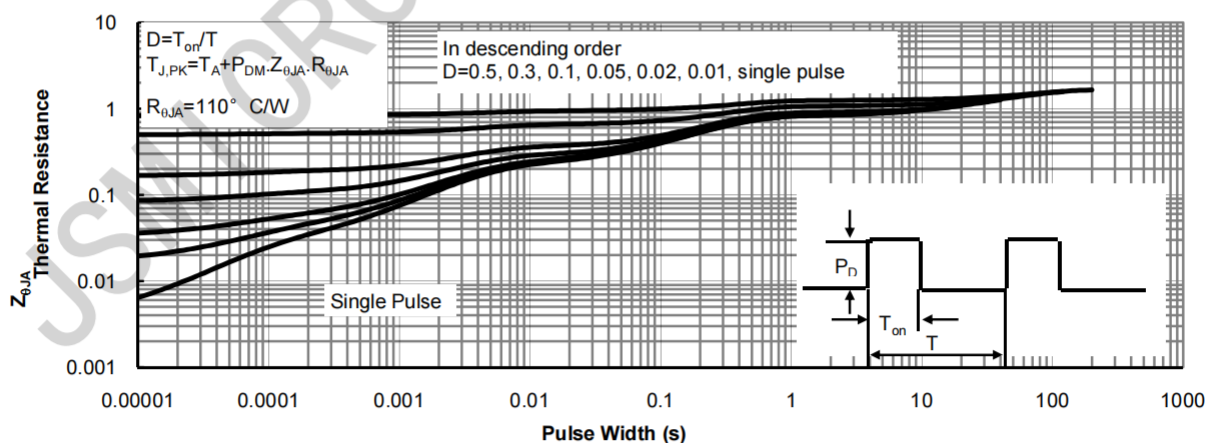
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-30	V
Gate-Source Voltage		V_{GS}	± 12	
Continuous Drain Current	$T_A = 25^\circ C$	I_D	-5	A
	$T_A = 70^\circ C$		-4	
Pulsed Drain Current		I_{DM}	-28	
Power Dissipation	$T_A = 25^\circ C$	P_D	2	W
	$T_A = 70^\circ C$		1.3	
Thermal Resistance.Junction- to-Ambient	$t \leq 10s$	R_{thJA}	62.5	$^\circ C/W$
	Steady-State		110	
Thermal Resistance.Junction- to-Lead		R_{thJL}	50	
Junction Temperature		T_J	150	$^\circ C$
Junction Storage Temperature Range		T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D = -250 \mu A$, $V_{GS} = 0V$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V$, $V_{GS} = 0V$			-1	μA
		$V_{DS} = -30V$, $V_{GS} = 0V$, $T_J = 55^\circ C$			-5	
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = -250 \mu A$	-0.5		-1.3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$, $I_D = -5A$			47	m Ω
		$V_{GS} = -10V$, $I_D = -5A$, $T_J = 125^\circ C$			74	
		$V_{GS} = -4.5V$, $I_D = -4A$			64	
		$V_{GS} = -2.5V$, $I_D = -1A$			85	
On state drain current	$I_{D(ON)}$	$V_{GS} = -10V$, $V_{DS} = -5V$	-28			A
Forward Transconductance	g_{FS}	$V_{DS} = -5V$, $I_D = -5A$		18		S
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -15V$, $f = 1MHz$		645	780	pF
Output Capacitance	C_{oss}			80		
Reverse Transfer Capacitance	C_{rss}			55	80	
Gate resistance	R_g	$V_{GS} = 0V$, $V_{DS} = 0V$, $f = 1MHz$	4		12	Ω
Total Gate Charge (10V)	Q_g	$V_{GS} = -10V$, $V_{DS} = -15V$, $I_D = -5A$		14	17	nC
Total Gate Charge (4.5V)				7	8.5	
Gate Source Charge				1.5		
Gate Drain Charge				2.5		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS} = -10V$, $V_{DS} = -15V$, $R_L = 3\Omega$, $R_{GEN} = 3\Omega$		6.5		ns
Turn-On Rise Time	t_r			3.5		
Turn-Off DelayTime	$t_{d(off)}$			41		
Turn-Off Fall Time	t_f			9		
Body Diode Reverse Recovery Time	t_{rr}	$I_F = -5A$, $dI/dt = 100A/\mu s$		11	13.5	nC
Body Diode Reverse Recovery Charge	Q_{rr}			3.5		
Maximum Body-Diode Continuous Current	I_S				-2.5	A
Diode Forward Voltage	V_{SD}	$I_S = -1A$, $V_{GS} = 0V$			-1	V

* The static characteristics in Figures 1 to 6 are obtained using <300us pulses, duty cycle 0.5% max.

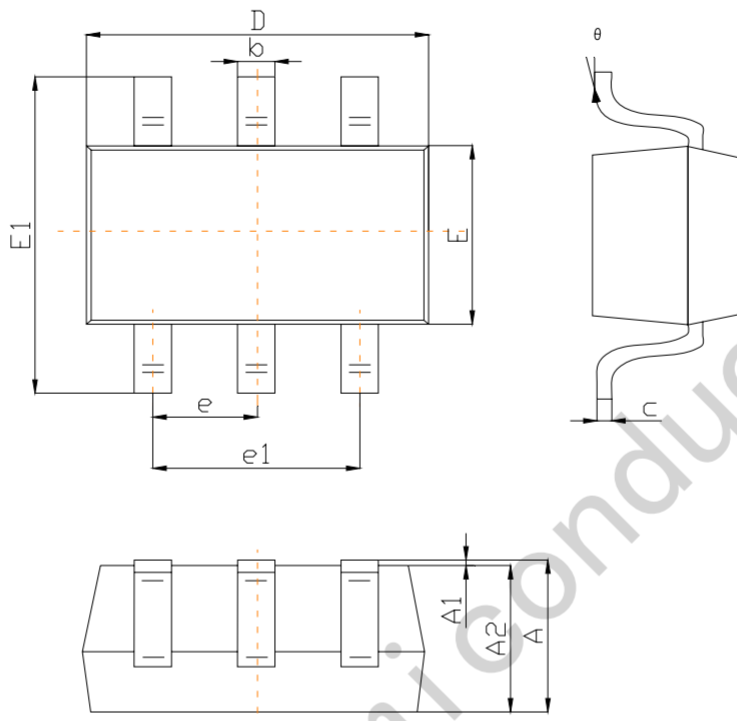
Typical Characteristics

Fig 1: On-Region Characteristics (Note E)

Figure 2: Transfer Characteristics (Note E)

Figure 3: On-Resistance vs. Drain Current and Gate Voltage (Note E)

Figure 4: On-Resistance vs. Junction Temperature (Note E)

Figure 5: On-Resistance vs. Gate-Source Voltage (Note E)

Figure 6: Body-Diode Characteristics (Note E)

Typical Characteristics

Figure 7: Gate-Charge Characteristics

Figure 8: Capacitance Characteristics

Figure 9: Maximum Forward Biased Safe Operating Area (Note F)

Figure 10: Single Pulse Power Rating Junction-to-Ambient (Note F)

Figure 11: Normalized Maximum Transient Thermal Impedance (Note F)

外形尺寸图 / Package Dimensions

TSOP-6

Dimensions in mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100		0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
	0°	8°	0°	8°