

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
100V	113mΩ@10V	3A
	116mΩ@4.5V	

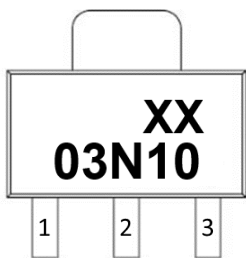
Feature

- High density cell design for ultra low RDS(on)
- Excellent package for good heat dissipation
- low gate charge

Application

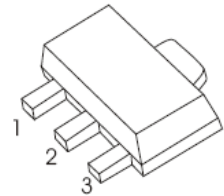
- Power switching application
- Hard switching and high frequency circuits
- Uninterruptible power supply

MARKING:



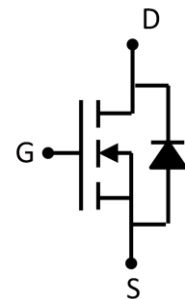
XX: Data Code

SOT-89-3L



1. GATE
2. DRAIN
3. SOURCE

Schematic diagram



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	3	A
Plused Drain Current ⁽¹⁾	I_{DM}	20	A
Power Dissipation	P_D	0.5	W
Thermal Resistance from Junction to Ambient ⁽²⁾	$R_{\theta JA}$	250	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~ +150	°C

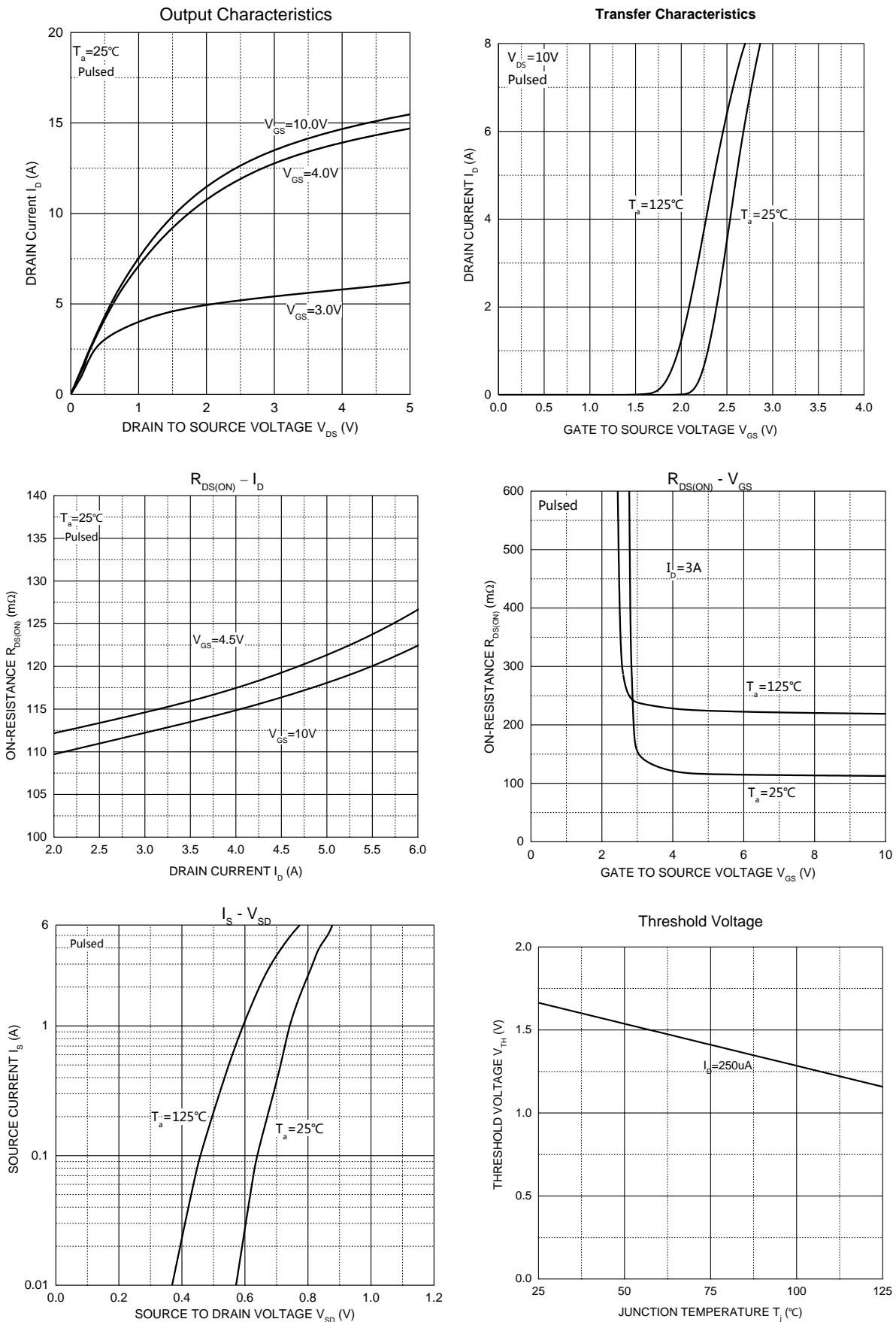
MOSFET ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	100			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 100V, V_{GS} = 0V$			1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA
Gate threshold voltage ⁽³⁾	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1	1.6	2	V
Drain-source on-resistance ⁽³⁾	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 3A$		113	140	m Ω
		$V_{GS} = 4.5V, I_D = 3A$		116	150	
Forward tranconductance ⁽³⁾	g_{FS}	$V_{DS} = 5V, I_D = 3A$	3			S
Dynamic characteristics⁽⁴⁾						
Input Capacitance	C_{iss}	$V_{DS} = 25V, V_{GS} = 0V, f = 1MHz$		607		pF
Output Capacitance	C_{oss}			38		
Reverse Transfer Capacitance	C_{rss}			20		
Switching characteristics⁽⁴⁾						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 10V, V_{DS} = 30V,$ $R_{GEN} = 2.5\Omega, I_D = 2A, R_L = 15\Omega$		9.7		ns
Turn-on rise time	t_r			6.5		
Turn-off delay time	$t_{d(off)}$			31		
Turn-off fall time	t_f			8		
Total Gate Charge	Q_g	$V_{DS} = 30V, V_{GS} = 10V, I_D = 3A$		13.7		nC
Gate-Source Charge	Q_{gs}			3.1		
Gate-Drain Charge	Q_{gd}			4.5		
Source-Drain Diode characteristics						
Diode Forward voltage ⁽³⁾	V_{DS}	$V_{GS} = 0V, I_S = 1A$		0.73	1.2	V

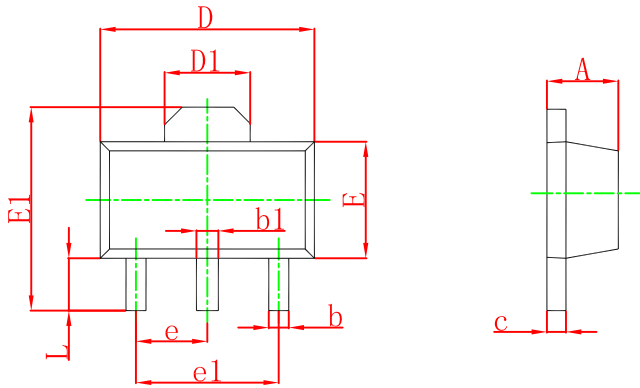
Notes:

1. Repetitive rating : Pulse width limited by junction temperature.
2. Surface mounted on FR4 board , $t \leq 10s$.
3. Pulse Test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.
4. Guaranteed by design, not subject to producing.

Typical Electrical and Thermal Characteristics



SOT-89-3L Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)