



Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-60V	24mΩ@-10V	-50A

Feature

- High density cell design for ultra low $R_{DS(ON)}$
- Excellent package for good heat dissipation

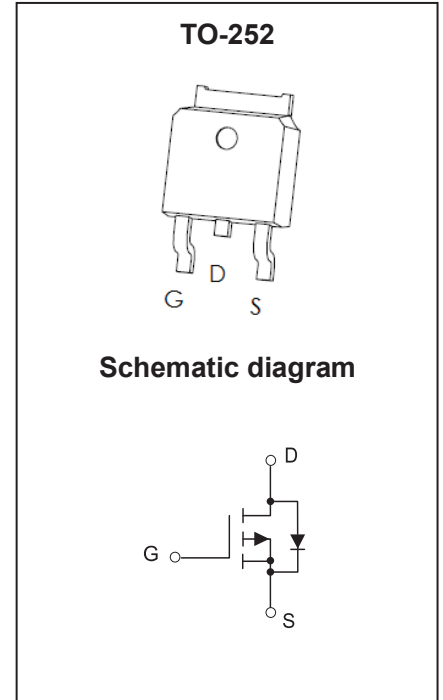
Application

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible Power Supply

MARKING:



50P06L= Device code
 Solid dot = Green molding compound device,
 if none, the normal device
 XX=Date Code



ABSOLUTE MAXIMUM RATINGS (TC=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current ¹	I_D	-50	A
Pulsed Drain Current ¹	I_{DM}	-200	A
Power Dissipation ²	P_D	125	W
Thermal Resistance from Junction to Case	$R_{\theta JC}$	1	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~ +150	°C

Notes :

- 1.The maximum current rating is limited by package.And device mounted on a large heatsink
- 2.The power dissipation P_D is limited by $T_{J(MAX)} = 150^{\circ}C$.And device mounted on a large heatsink

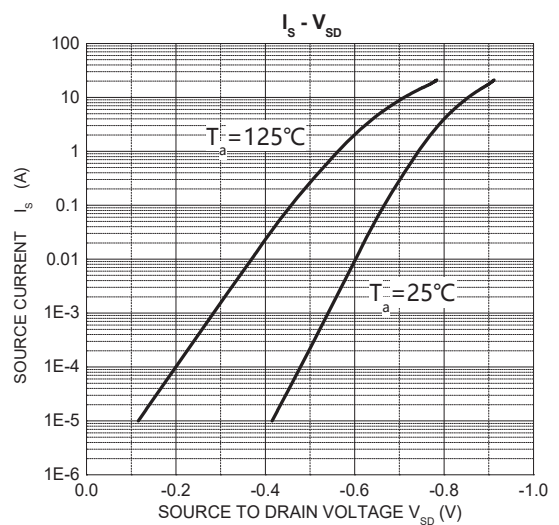
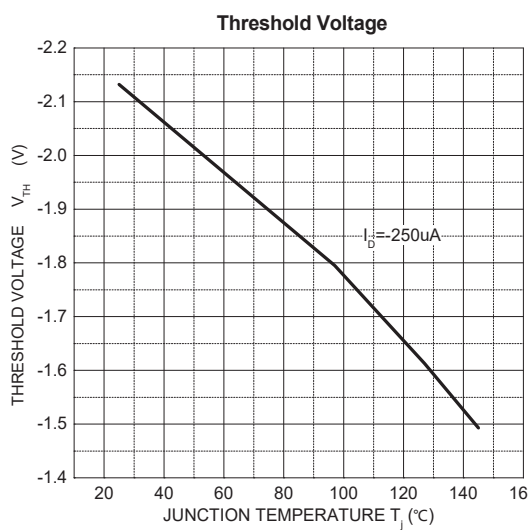
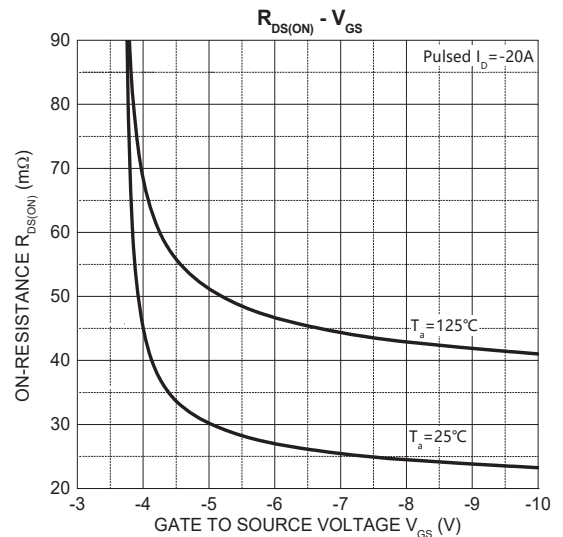
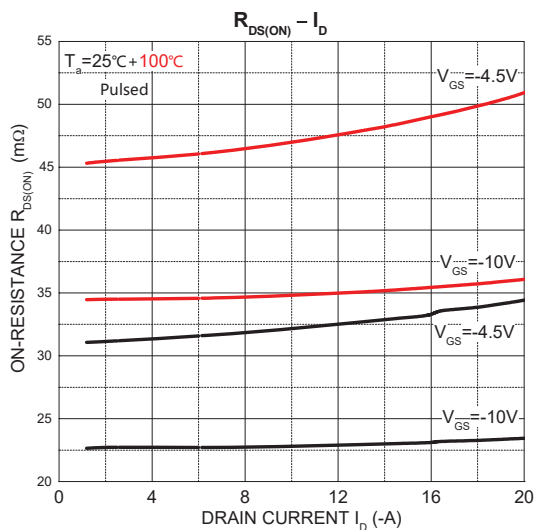
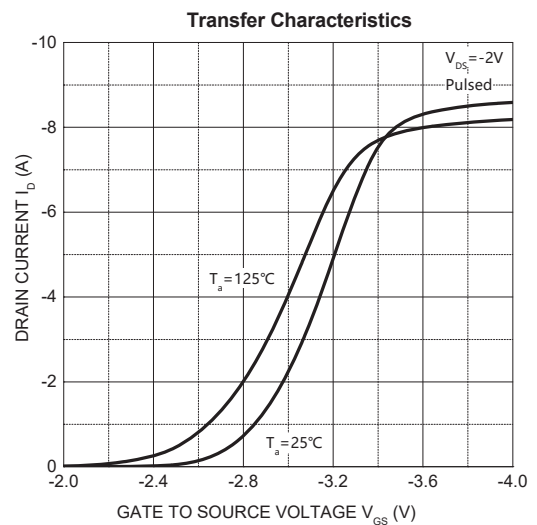
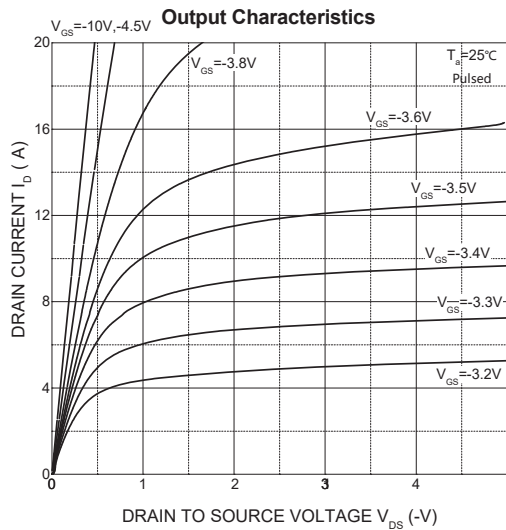
MOSFET ELECTRICAL CHARACTERISTICS(TC=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Off Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-60			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = -48V, V_{GS} = 0V$			-1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 100	nA
On Characteristics						
Gate threshold voltage*	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1	-2	-3	V
Drain-source on-resistance*	$R_{DS(on)}$	$V_{GS} = -10V, I_D = -15A$		24	29	m Ω
Forward transconductance*	g_{FS}	$V_{DS} = -10V, I_D = -10A$	15			S
Dynamic characteristics						
Input Capacitance	C_{iss}	$V_{DS} = -30V, V_{GS} = 0V, f = 1MHz$		3129		pF
Output Capacitance	C_{oss}			173		
Reverse Transfer Capacitance	C_{rss}			162.6		
Switching Characteristics						
Total Gate Charge	Q_g	$V_{DS} = -30V, V_{GS} = -10V, I_D = -15A$		53		nC
Gate-Source Charge	Q_{gs}			15		
Gate-Drain Charge	Q_{gd}			13		
Turn-on delay time	$t_{d(on)}$	$V_{DD} = -30V, R_G = 1.5\Omega,$ $V_{GS} = -10V, R_G = 3\Omega,$		13		ns
Turn-on rise time	t_r			17		
Turn-off delay time	$t_{d(off)}$			50		
Turn-off fall time	t_f			20		
Diode Characteristics						
Diode Forward Voltage	V_{SD}	$V_{GS} = 0V, I_S = -15A$			-1.2	V

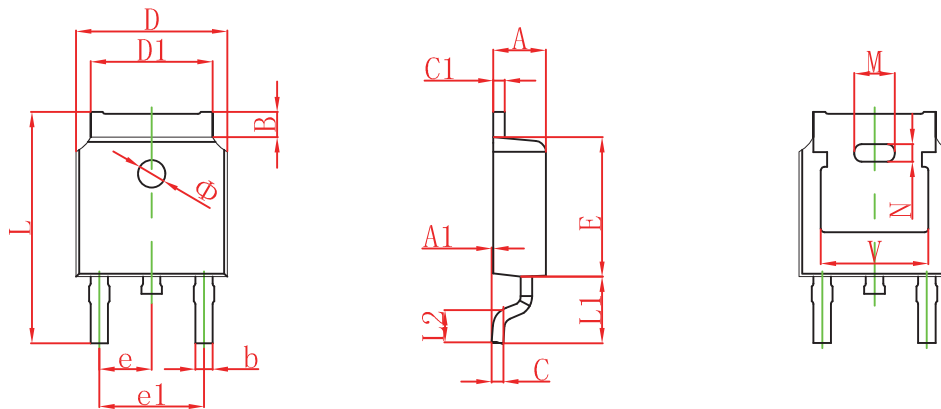
Note :

*: Pulse test : Pulse width $\leq 380\mu s$, duty cycle $\leq 2\%$.

Typical Characteristics



TO-252 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A1	0.000	0.100	0.000	0.004
B	0.800	1.400	0.031	0.055
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
c1	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
E	6.000	6.200	0.236	0.244
e	2.286 TYP.		0.090 TYP.	
e1	4.327	4.727	0.170	0.186
M	1.778REF.		0.070REF.	
N	0.762REF.		0.018REF.	
L	9.800	10.400	0.386	0.409
L1	2.9REF.		0.114REF.	
L2	1.400	1.700	0.055	0.067
V	4.830 REF.		0.190 REF.	
Φ	1.100	1.300	0.043	0.051

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)