

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-100V	35mΩ@-10V	-30A
	45mΩ@-4.5V	



合肥矽普半导体

Siliup Semiconductor Technology Co.Ltd

技术 品质 服务

www.siliup.com

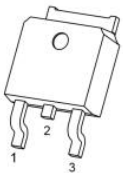
Feature

- VDS -100V
- ID -30A
- $R_{DS(ON)}$ (at VGS=10V) < 50 mohm
- Fast Switching

Applications

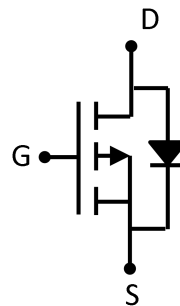
- Motor control
- Switching Regulators
- Isolated DC/DC convertor
- Alertor

Package

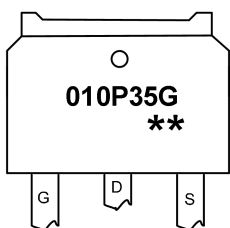


TO-252(1:G 2:D 3:S)

Circuit diagram



Marking



Order Information

Device	Package	Unite/Tape
SP010P35GTH	TO-252	2500

Absolute maximum ratings (Ta=25°C unless otherwise noted)

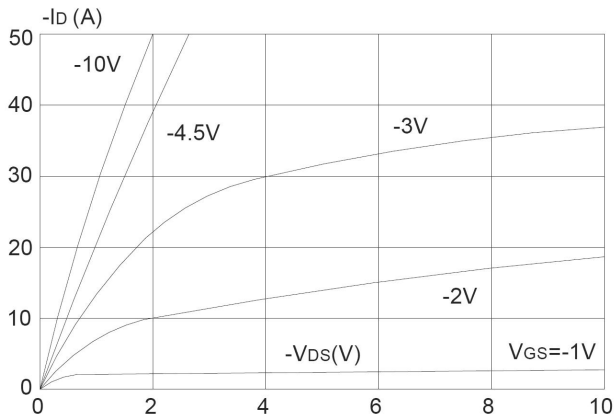
Parameter	Symbol	Rating	Units
Drain-Source Voltage	V _{DS}	-100	V
Gate-Source Voltage	V _{GS}	±20	V
Drain Current – Continuous	I _D	-30	A
Drain Current – Pulsed	I _{DM}	-120	A
Power Dissipation (TC=25°C)	P _D	120	W
Thermal Resistance Junction to Case	R _{θJC}	1.04	°C/W
Storage Temperature Range	T _{STG}	-50 to 150	°C
Operating Junction Temperature Range	T _J	-50 to 150	°C

Electrical characteristics (Ta=25°C, unless otherwise noted)

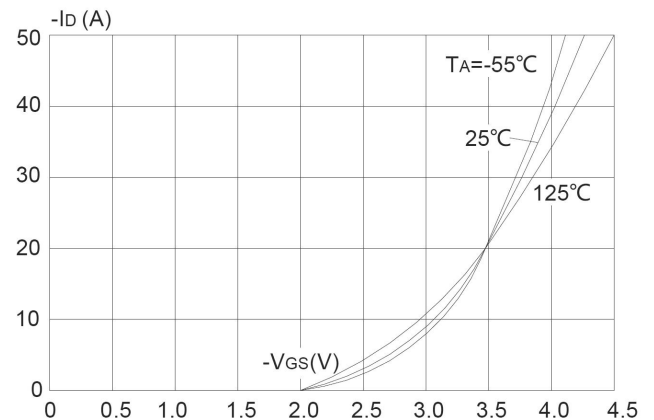
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	B _{VDS}	V _{GS} =0V, I _D =-250uA	-100	---	---	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =-100V, V _{GS} =0V	---	---	-1	uA
Gate-Source Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0V	---	---	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{GS} =V _{DS} , I _D =-250uA	-1	-1.6	-2.5	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =-10V, I _D =-15A	---	35	50	mΩ
		V _{GS} =-4.5V, I _D =-10A	---	45	65	mΩ
Dynamic Characteristics						
Total Gate Charge	Q _g	V _{GS} =-10V, V _{DS} =-50V, I _D =-5A	---	41	---	nC
Gate-Source Charge	Q _{gs}		---	8.1	---	
Gate-Drain Charge	Q _{gd}		---	8.2	---	
Turn-On Delay Time	T _{d(on)}	V _{GS} =-10V, V _{DD} =-50V, I _D =-5A, R _{GEN} =6Ω	---	13	---	ns
Rise Time	T _r		---	37	---	
Turn-Off Delay Time	T _{d(off)}		---	101	---	
Fall Time	T _f		---	104	---	
Input Capacitance	C _{iss}	V _{DS} =-50V, V _{GS} =0V, f=1MHZ	---	2205	---	pF
Output Capacitance	C _{oss}		---	197	---	
Reverse Transfer Capacitance	C _{rss}		---	14	---	
Drain-Source Body Diode Characteristics						
Continuous Source Current	I _S	V _G =V _D =0V, Force Current	---	---	-30	A
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =-1A	---	---	-1.2	V

Typical Characteristics

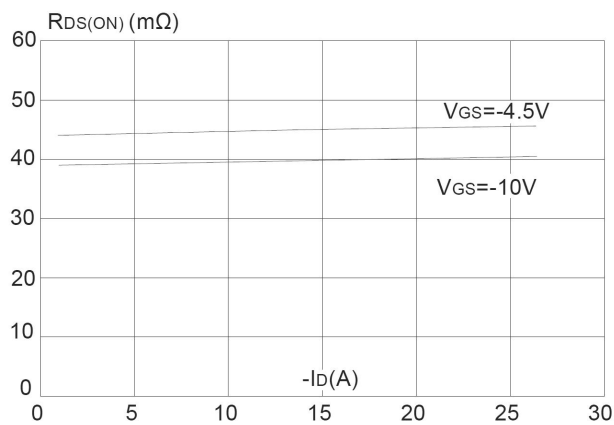
Output Characteristics



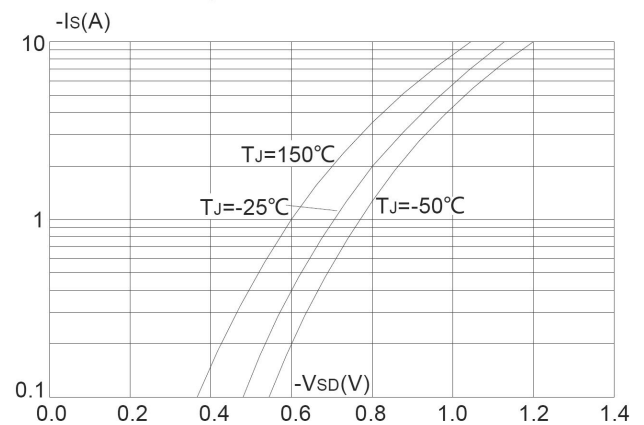
Typical Transfer Characteristics



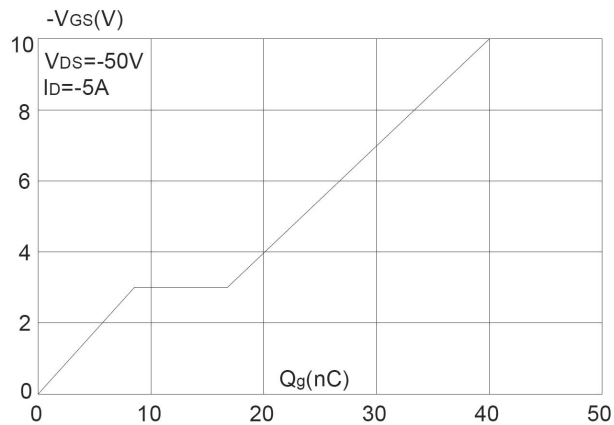
On-resistance vs. Drain Current



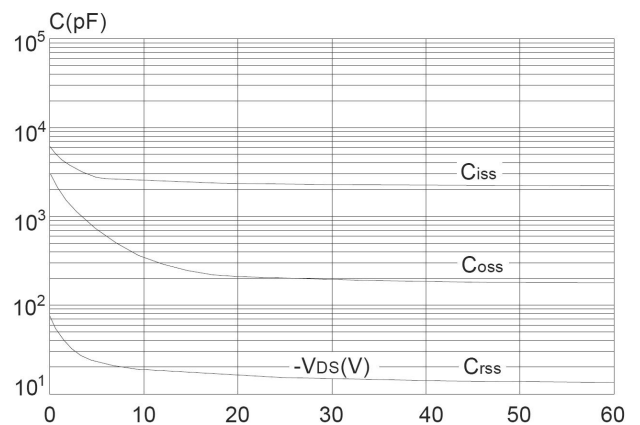
Body Diode Characteristics



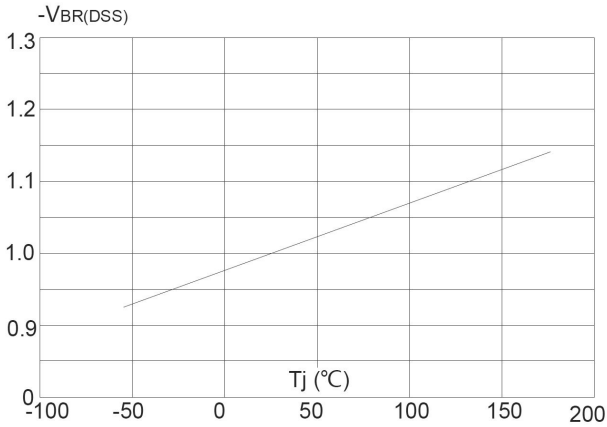
Gate Charge Characteristics



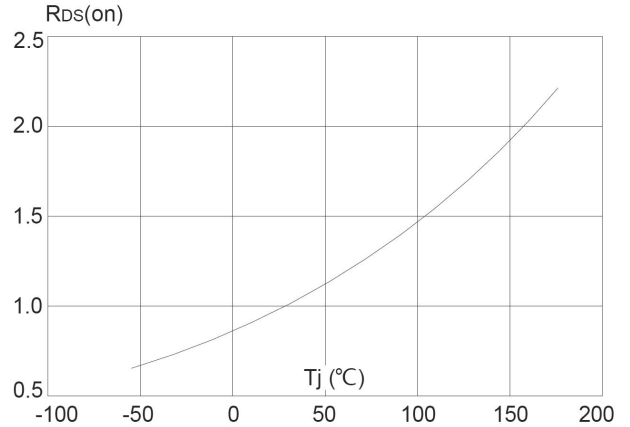
Capacitance Characteristics



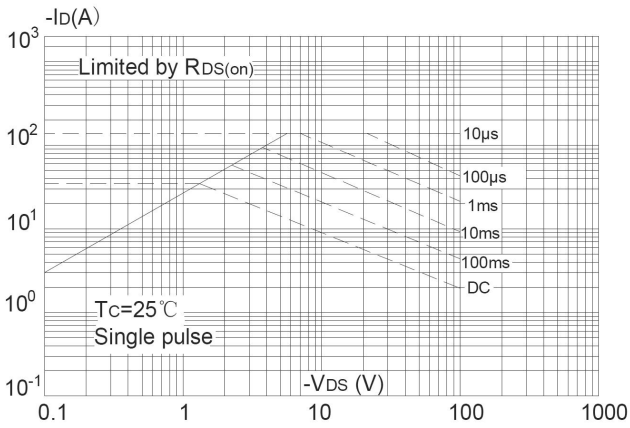
Normalized Breakdown Voltage vs. Junction Temperature



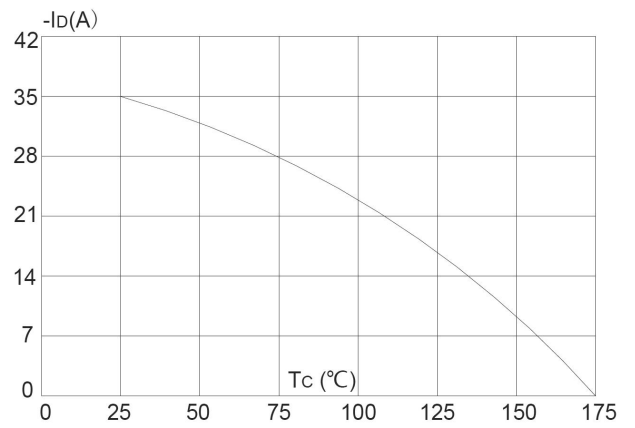
Normalized on Resistance vs. Junction Temperature



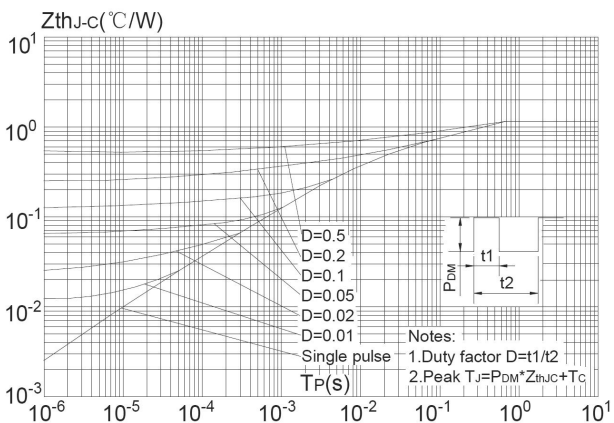
Maximum Safe Operating Area



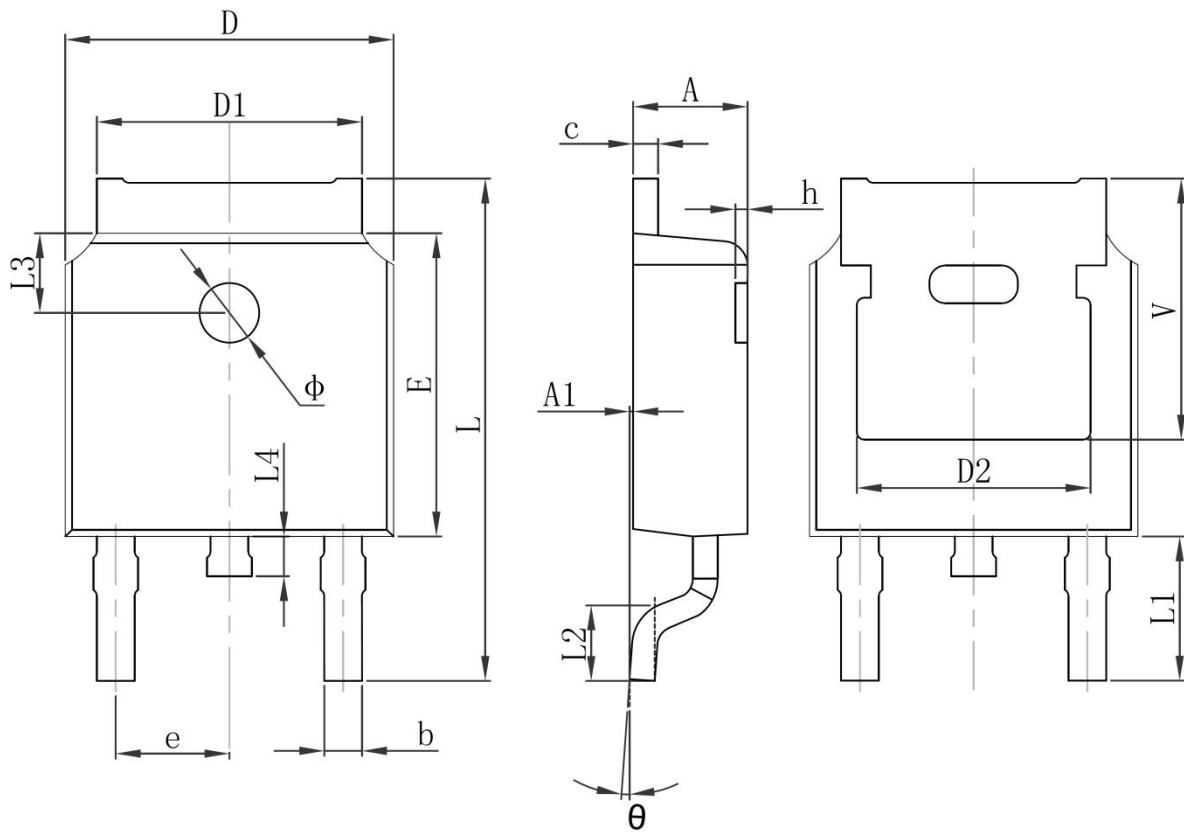
Maximum Continuous Drain Current vs. Case Temperature



Maximum Effective Transient Thermal Impedance, Junction-to-Case



TO-252 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.660	0.860	0.026	0.034
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.350 REF.		0.211 REF.	

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [Siliup](#) manufacturer:

Other Similar products are found below :

[IRFD120](#) [IRFY240C](#) [JANTX2N5237](#) [2SK2267\(Q\)](#) [BUK455-60A/B](#) [MIC4420CM-TR](#) [VN1206L](#) [NDP4060](#) [SI4482DY](#)
[IPS70R2K0CEAKMA1](#) [SQD23N06-31L-GE3](#) [TK16J60W,S1VQ\(O](#) [2SK2614\(TE16L1,Q\)](#) [DMN1017UCP3-7](#) [EFC2J004NUZTDG](#)
[DMN1053UCP4-7](#) [SQJ469EP-T1-GE3](#) [NTE2384](#) [DMC2700UDMQ-7](#) [DMN2080UCB4-7](#) [DMN61D9UWQ-13](#) [US6M2GTR](#)
[DMN31D5UDJ-7](#) [DMP22D4UFO-7B](#) [DMN1006UCA6-7](#) [DMN16M9UCA6-7](#) [STF5N65M6](#) [IRF40H233XTMA1](#) [STU5N65M6](#)
[DMN6022SSD-13](#) [DMN13M9UCA6-7](#) [DMTH10H4M6SPS-13](#) [DMN2990UFB-7B](#) [IPB80P04P405ATMA2](#) [2N7002W-G](#) [MCAC30N06Y-](#)
[TP](#) [MCQ7328-TP](#) [NTMC083NP10M5L](#) [NVMFS2D3P04M8LT1G](#) [BXP7N65D](#) [BXP4N65F](#) [AOL1454G](#) [WMJ80N60C4](#) [BXP2N20L](#)
[BXP2N65D](#) [BXT1150N10J](#) [BXT1700P06M](#) [TSM60NB380CP](#) [ROG](#) [RQ7L055BGTCR](#) [DMNH15H110SK3-13](#)