

## Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	$I_D$
-100V	36mΩ@-10V	-25A
	51mΩ@-4.5V	



合肥矽普半导体

Siliup Semiconductor Technology Co.Ltd

技术 品质 服务

www.siliup.com

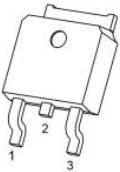
## Feature

- Fast Switching
- Low On-Resistance
- Excellent FOM

## Applications

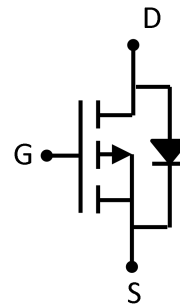
- Motor control
- Switching Regulators
- Isolated DC/DC convertor
- Alertor

## Package

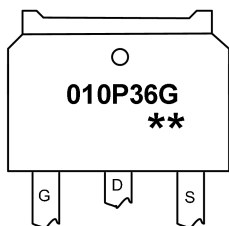


TO-252(1:G 2:D 3:S)

## Circuit diagram



## Marking



010P36G =Device Code  
\*\* =Week Code

## Order Information

Device	Package	Unite/Tape
SP010P36GTH	TO-252	2500

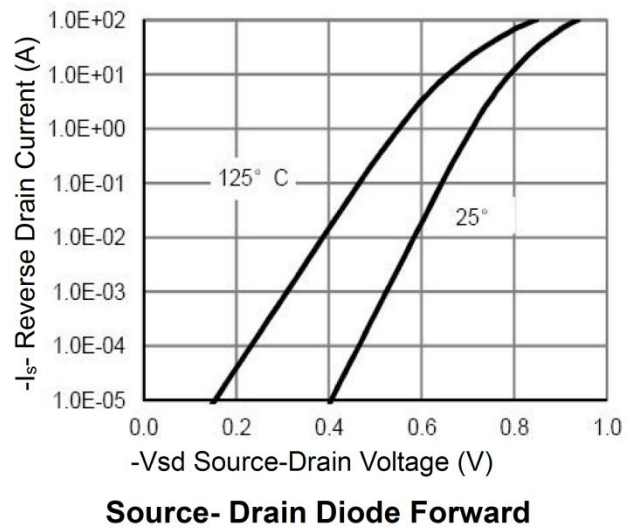
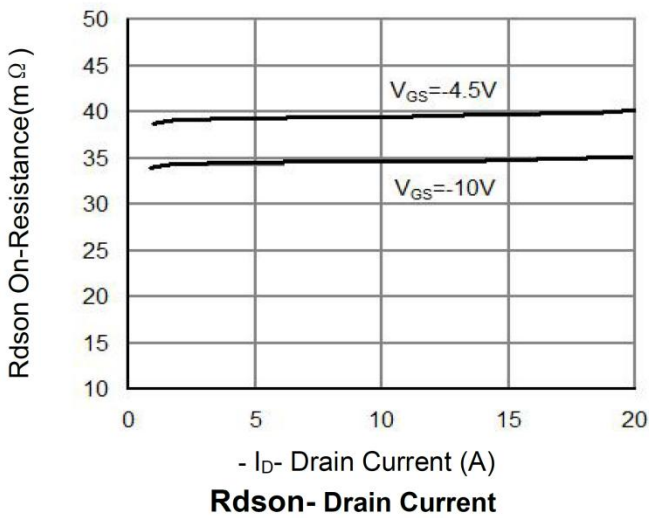
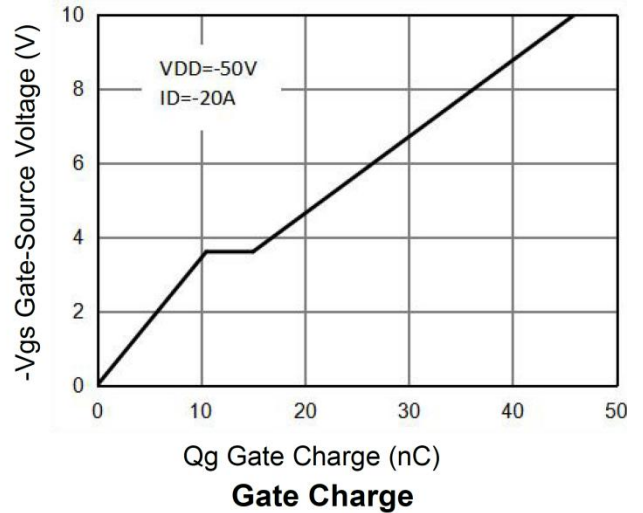
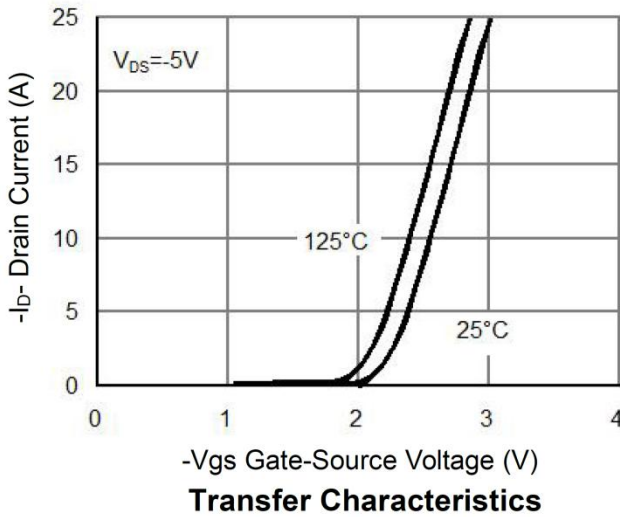
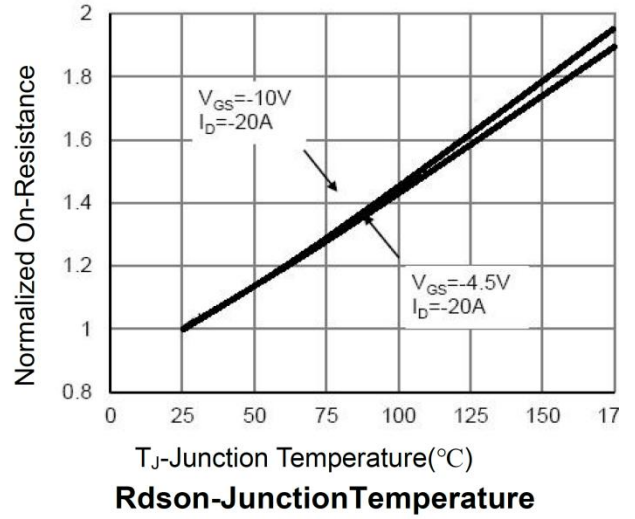
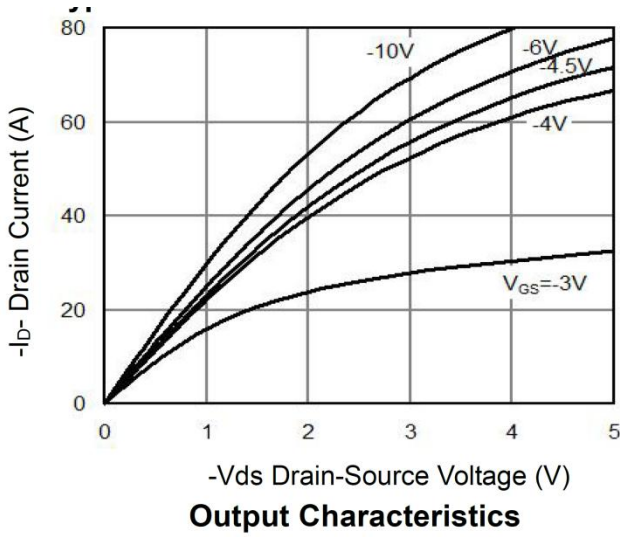
### Absolute maximum ratings (Ta=25°C unless otherwise noted)

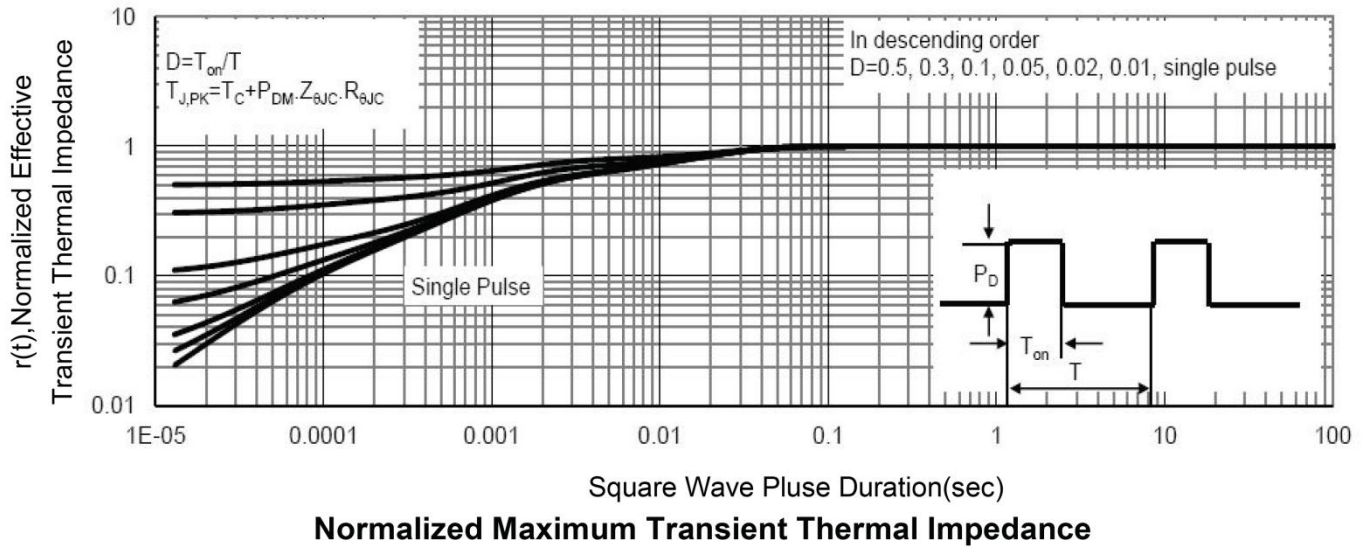
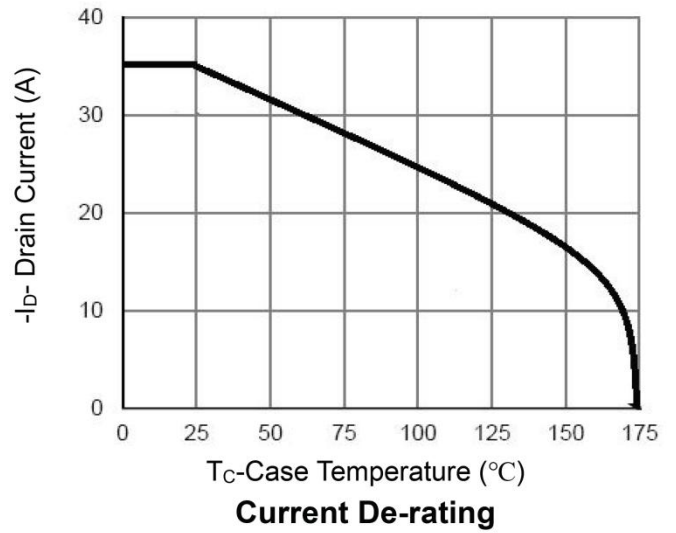
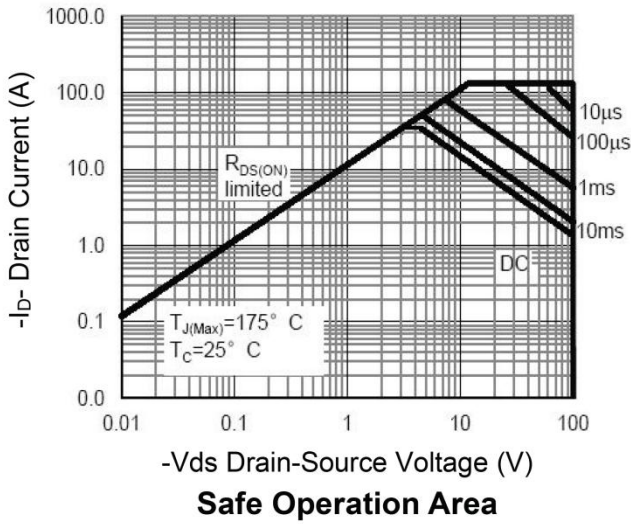
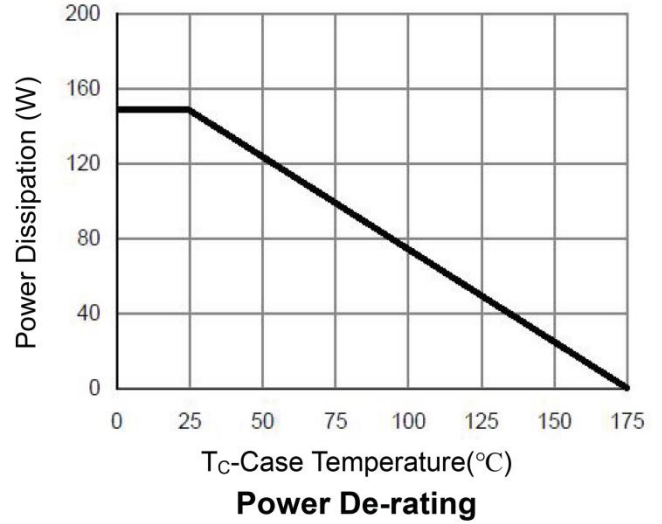
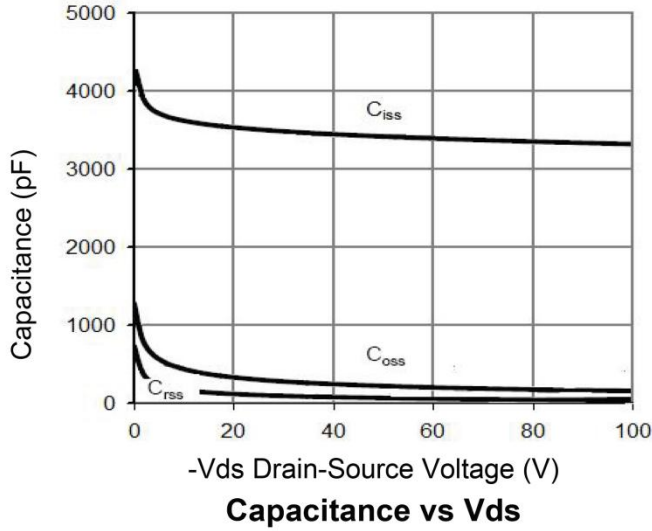
Parameter	Symbol	Rating	Units
Drain-Source Voltage	V <sub>DS</sub>	-100	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Drain Current – Continuous	I <sub>D</sub>	-25	A
Drain Current – Pulsed	I <sub>DM</sub>	-100	A
Power Dissipation (TC=25°C)	P <sub>D</sub>	120	W
Thermal Resistance Junction to Case	R <sub>θJC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

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

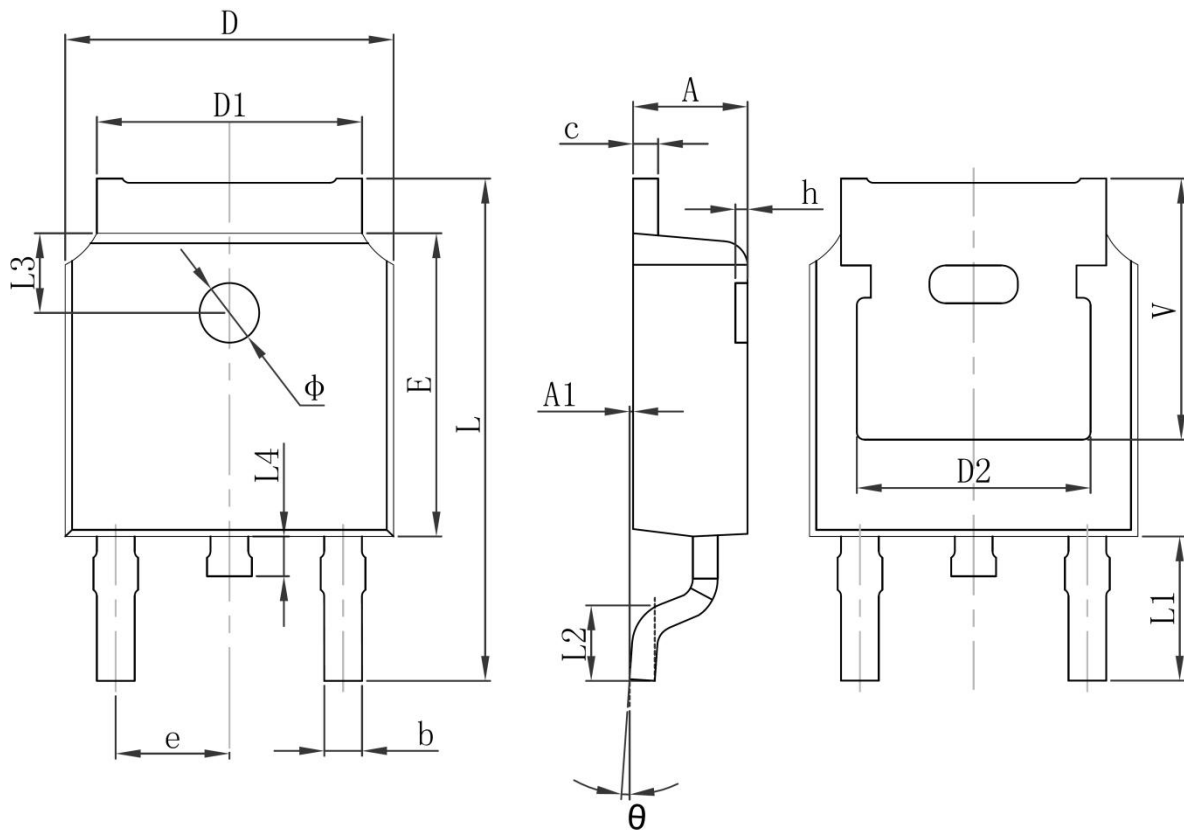
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
<b>Static Characteristics</b>						
Drain-Source Breakdown Voltage	B <sub>VDS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =-250uA	-100	---	---	V
Drain-Source Leakage Current	I <sub>DSS</sub>	V <sub>DS</sub> =-100V, V <sub>GS</sub> =0V	---	---	-1	uA
Gate-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±20V, V <sub>DS</sub> =0V	---	---	±100	nA
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>GS</sub> =V <sub>DS</sub> , I <sub>D</sub> =-250uA	-1	-2.2	-3	V
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =-10V, I <sub>D</sub> =-15A	---	36	45	mΩ
		V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-10A	---	51	68	mΩ
<b>Dynamic Characteristics</b>						
Total Gate Charge	Q <sub>g</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-50V, I <sub>D</sub> =-15A	---	20	---	nC
Gate-Source Charge	Q <sub>gs</sub>		---	6.1	---	
Gate-Drain Charge	Q <sub>gd</sub>		---	3.5	---	
Turn-On Delay Time	T <sub>d(on)</sub>	V <sub>GS</sub> =-10V, V <sub>DD</sub> =-50V, I <sub>D</sub> =-15A, R <sub>GEN</sub> =6Ω	---	11	---	ns
Rise Time	T <sub>r</sub>		---	56	---	
Turn-Off Delay Time	T <sub>d(off)</sub>		---	46	---	
Fall Time	T <sub>f</sub>		---	84	---	
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =-50V, V <sub>GS</sub> =0V, f=1MHZ	---	1415	---	pF
Output Capacitance	C <sub>oss</sub>		---	217	---	
Reverse Transfer Capacitance	C <sub>rss</sub>		---	3	---	
<b>Drain-Source Body Diode Characteristics</b>						
Continuous Source Current	I <sub>S</sub>	V <sub>G</sub> =V <sub>D</sub> =0V, Force Current	---	---	-30	A
Diode Forward Voltage	V <sub>SD</sub>	V <sub>GS</sub> =0V, I <sub>S</sub> =-1A	---	---	-1.2	V

**Typical Characteristics**





### 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](#)