/ Descriptions

TO-252 ṂṂ Ŀ N ǰ MOS ʃ ɷ̃ Ẓ ˥ N-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

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Low gate charge, low crss, fast switching.

/ Applications

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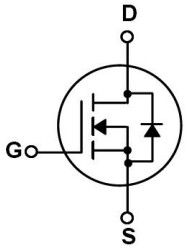
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.





PIN1 χ G PIN 2 χ D PIN 3 χ S PIN 4 χ D

/ h_{FE} Classifications & Marking

ð ʍ ˥ ب ˝ See Marking Instructions.

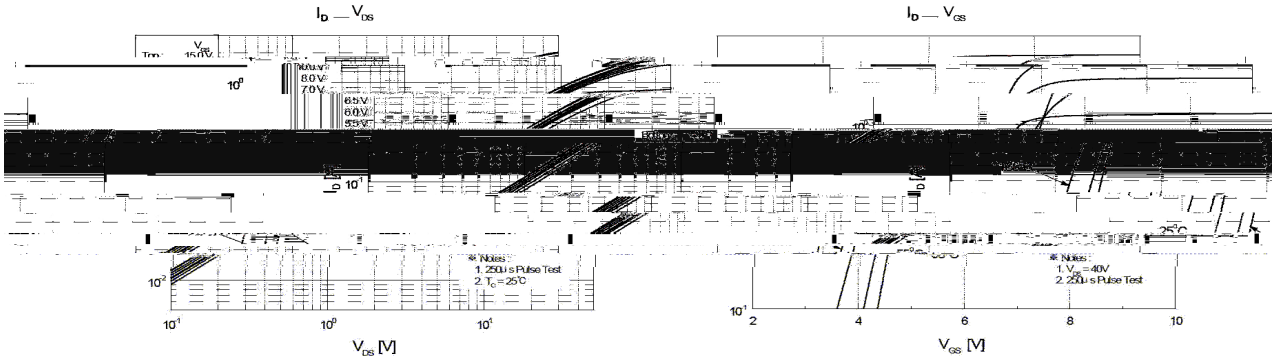
/ Absolute Maximum Ratings(Ta=25)

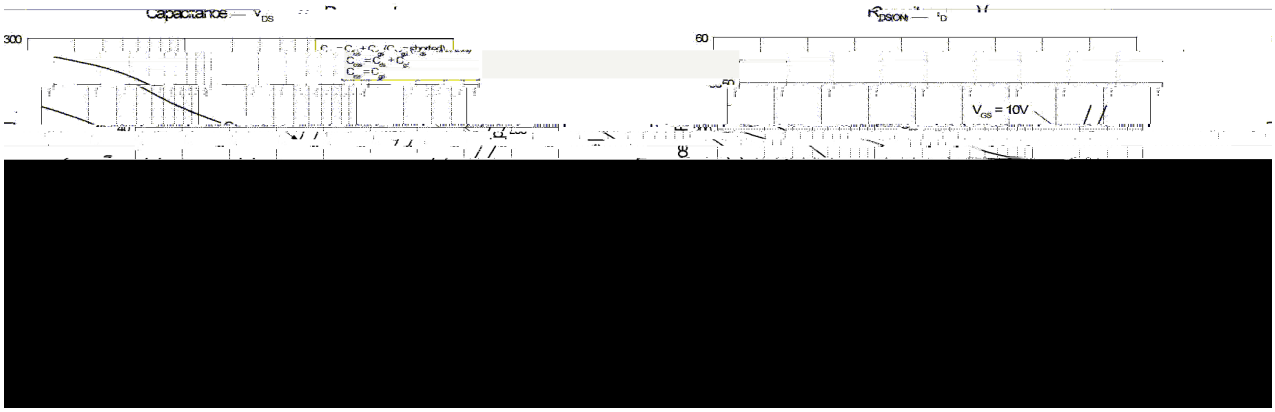
v ̈Ω̣ Parameter	ɿ N Symbol	̈Ω̣Ö Rating	D Ɉ Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current	I_D(Tc=25)	1.0	A
Drain Current	I_D(Tc=100)	0.6	A
Drain Current - Pulsed	I_{DM}	3.0	A
Gate-Source Voltage	V_{GSS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	50	mJ
Repetitive Avalanche Energy	E_{AR}	2.8	mJ
Avalanche Current	I_{AR}	1.0	A
Power Dissipation	P_D(Tc=25)	30	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

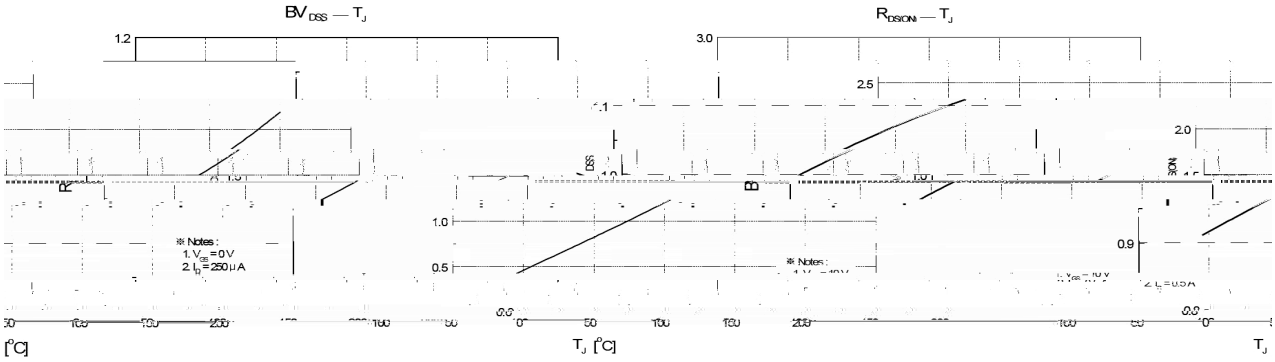
/ Electrical Characteristics(Ta=25)

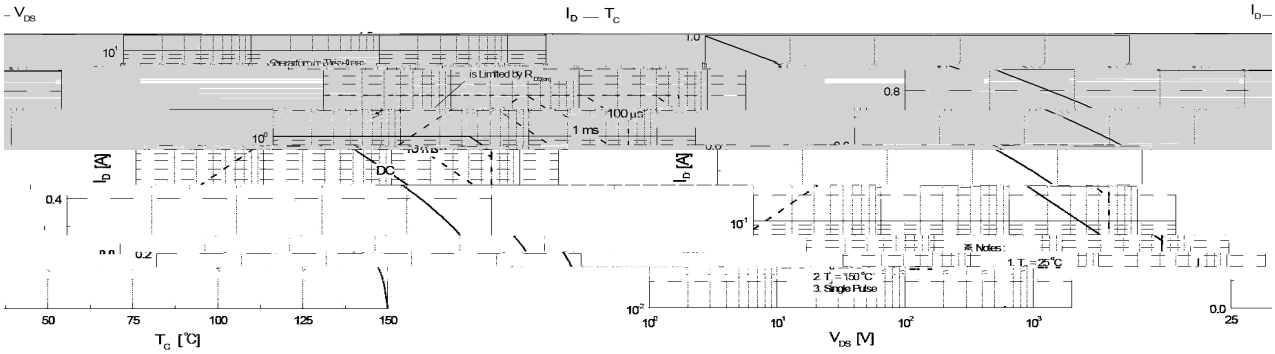
v ̈Ω̣ Parameter	ɿ N Symbol	⊥ ⁝ ̌ T Test Conditions	ω̣ ṇ Ö Min	Ɛ ʒ Ö Typ	ω̣ ʑ Ö Max	D Ɉ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	600			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=600V V_{GS}=0V			10	μA
		V_{DS}=480V T_C=125			100	μA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=0.5A		9.7	12	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=0.5A		0.97		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		155	200	pF
Output Capacitance	C_{oss}			20	26	pF
Reverse Transfer Capacitance	C_{rss}			3.0	4.0	pF
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=300V I_D=1.2A R_G=50Ω		10	30	ns
Turn-On Rise Time	t_r			20	50	ns
Turn-Off Delay Time	$t_{d(off)}$			16	45	ns
Turn-Off Fall Time	t_f			25	60	ns

/ Electrical Characteristic Curve









/ Package Dimensions



0.00	0.10	D1	5.10	5.50	K

TO-252