

/ Descriptions

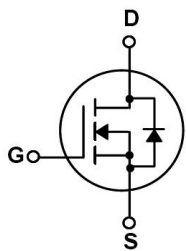
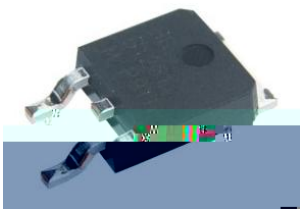
TO-252 N-MOS 6 N-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

Low gate charge, low crss, fast switching.

/ Applications

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

See Marking Instructions.

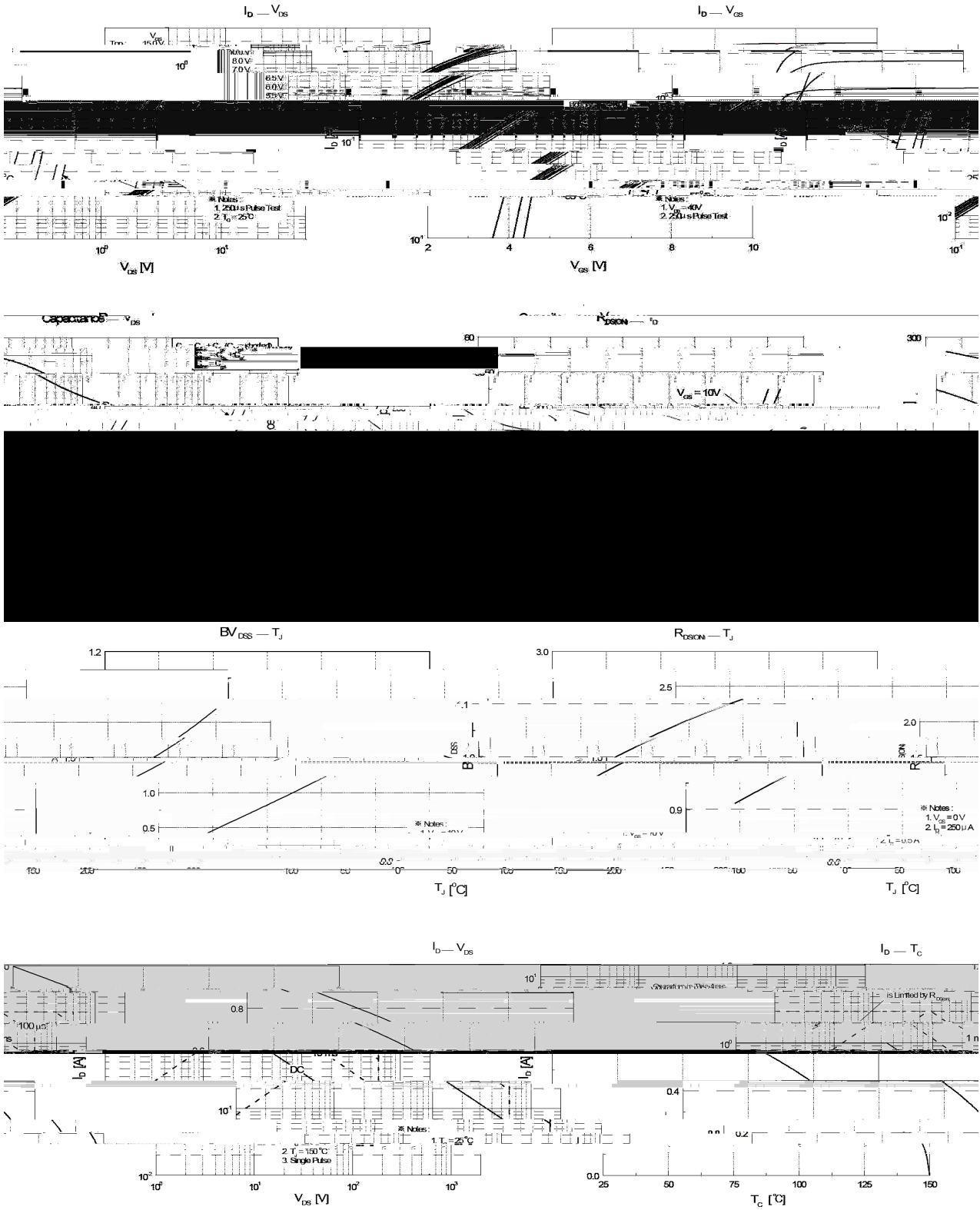
/ Absolute Maximum Ratings(Ta=25 °C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	600	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	1.0	A
Drain Current	$I_D(T_C=100^\circ\text{C})$	0.6	A
Drain Current - Pulsed	I_{DM}	3.0	A
Gate-Source Voltage	V_{GS}	± 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	$P_D(T_C=25^\circ\text{C})$	30	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

/ Electrical Characteristics(Ta=25 °C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V, I_D=250\mu A$	600			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=600V, V_{GS}=0V$			10	A
		$V_{DS}=480V, T_C=125^\circ\text{C}$			100	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 30V, V_{DS}=0V$			± 0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=0.5A$		9.7	12	
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	$t_{d(on)}$	$V_{DD}=300V, I_D=1.2A, R_G=50\Omega$		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

