

描述 / Descriptions

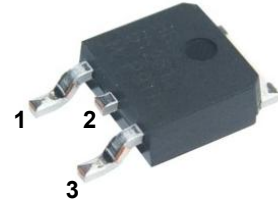
TO-252 塑封封装 P 沟道 MOS 场效应管。
 P-CHANNEL MOSFET in a TO-252 Plastic Package.

特征 / Features

$V_{DS} = -60V, I_D = -26A, R_{DS(ON)} < 40m\Omega$
 $@ V_{GS} = -10V, R_{DS(ON)} < 55m\Omega @ V_{GS} = -4.5V$
 高功率和电流转移能力，无铅产品，表面贴装封装。
 High Power and current handing capability, Lead free product is acquired, Surface Mount Package.

用途 / Applications

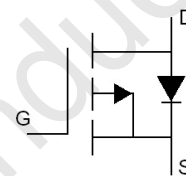
用于 PWM, 负载开关，电源管理。
 PWM applications, Load switch, Power management.

引脚排列 / Pinning


PIN 1 : G

PIN 2 : D

PIN 3 : S

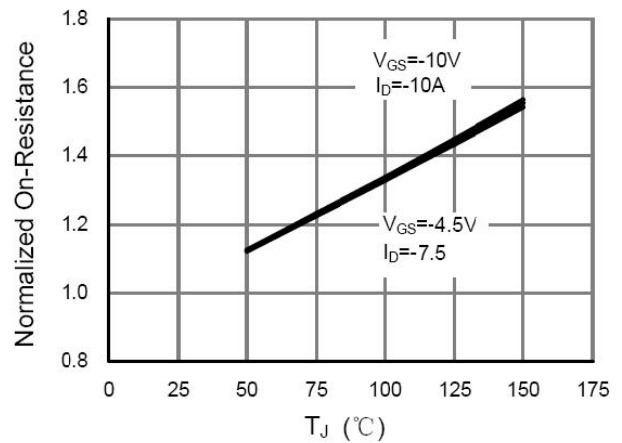
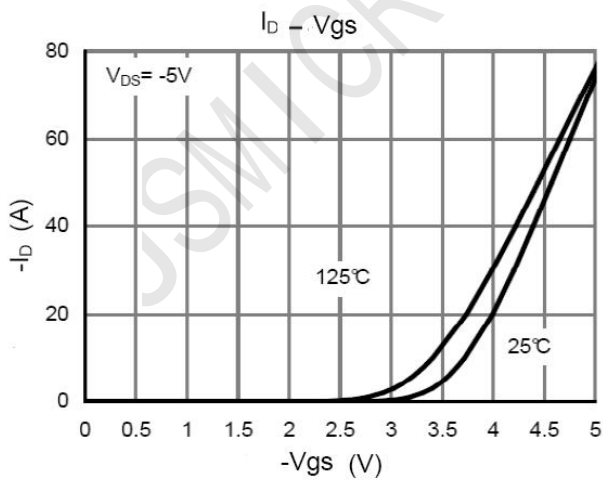
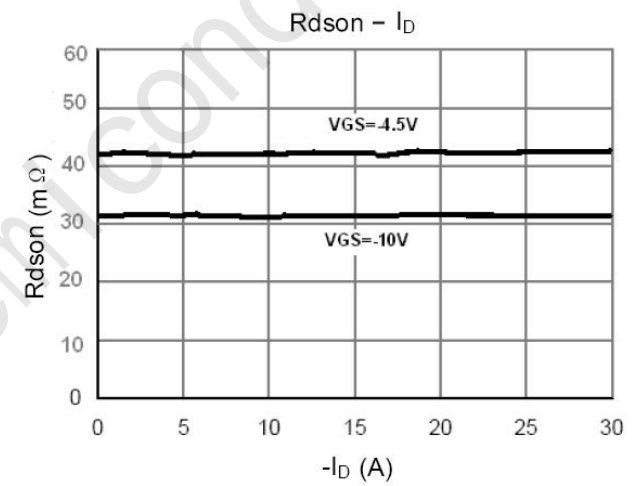
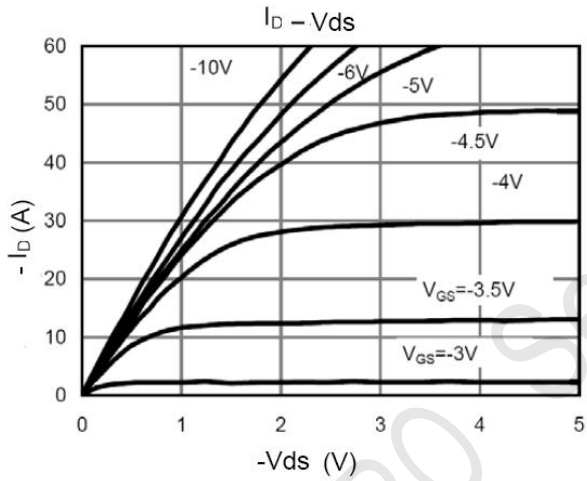
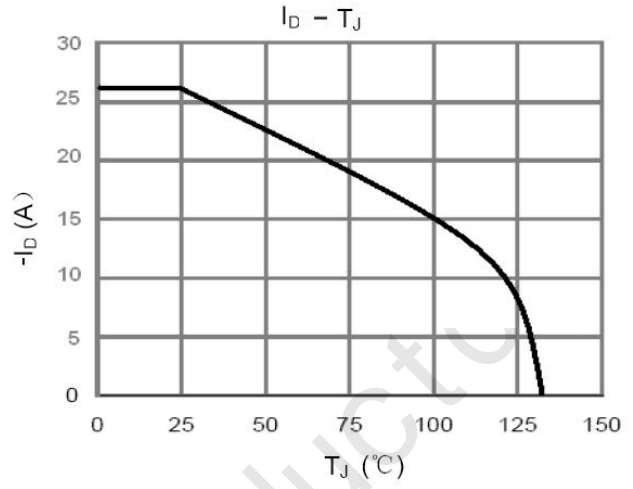
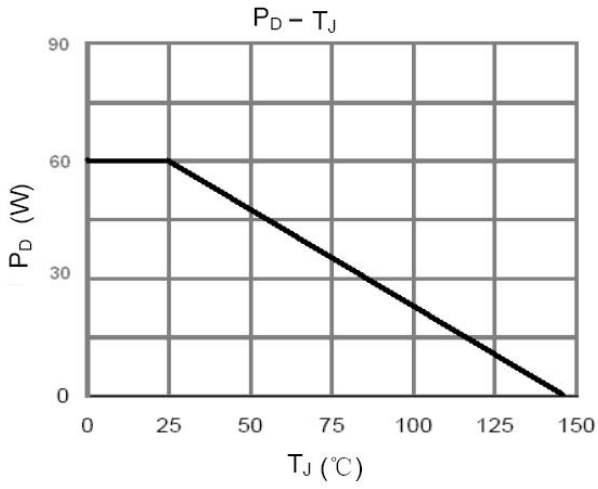
内部等效电路 / Equivalent Circuit

极限参数 / Absolute Maximum Ratings(Ta=25°C)

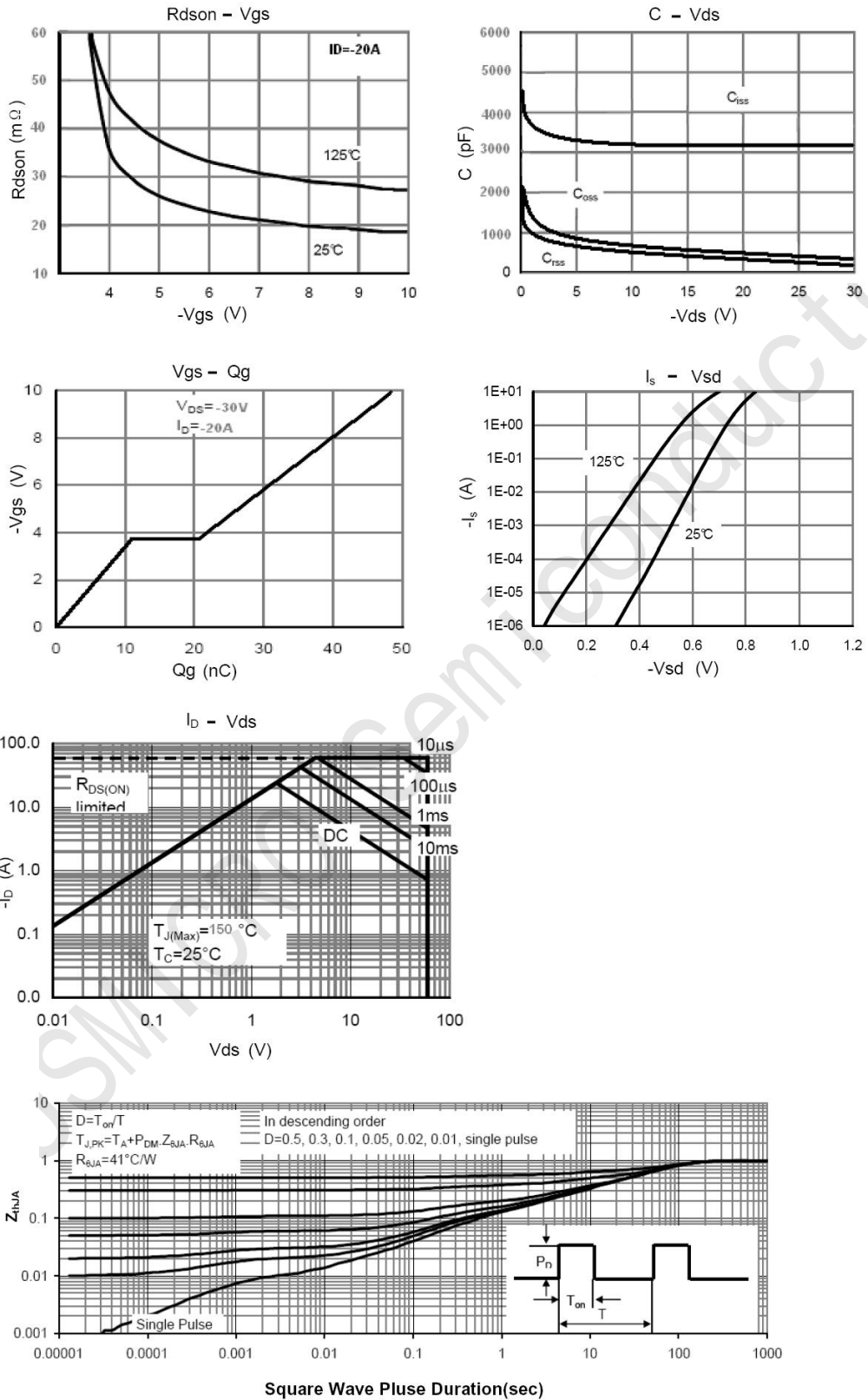
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DS}	-60	V
Drain Current	$I_D(Tc=25^\circ C)$	-30	A
Drain Current	$I_D(Tc=70^\circ C)$	-20	A
Drain Current - Pulsed	I_{DM}	-60	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(Tc=25^\circ C)$	60	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 175	$^\circ C$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	25	$^\circ C/W$

电性能参数 / Electrical Characteristics(Ta=25°C)

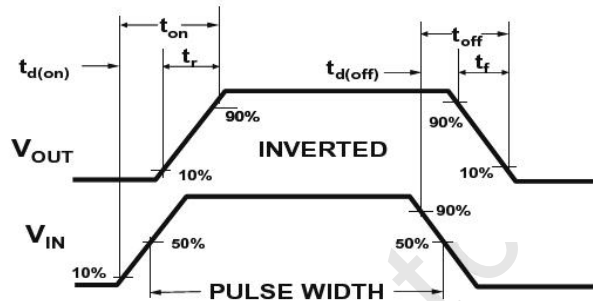
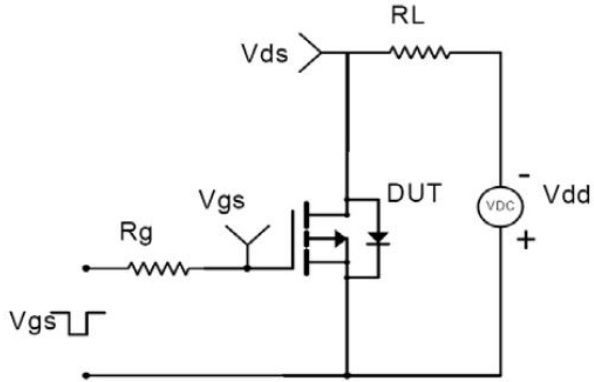
参数 Parameter	符号 Symbol	测试条件 Test Conditions		最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$	$I_D=-250\mu A$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-48V$	$V_{GS}=0V$			-1.0	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$	$V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=-250\mu A$	-1.0	-1.8	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V$	$I_D=-20A$		31	40	m Ω
		$V_{GS}=-4.5V$	$I_D=-20A$		42	55	m Ω
Forward Transconductance	g_{FS}	$V_{DS}=-5V$	$I_D=-20A$		5		S
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_S=-1A$		-0.72	-1	V
Input Capacitance	C_{iss}	$V_{DS}=-30V$ $f=1.0MHz$	$V_{GS}=0V$		3060		pF
Output Capacitance	C_{oss}				300		pF
Reverse Transfer Capacitance	C_{rss}				205		pF
Turn-On Delay Time	$t_{d(on)}$	$V=-30V$ $R_{GEN}=3\Omega$	$V=-10V$ $I_D=1A$		14		ns
Turn-On Rise Time	t_r				20		ns
Turn-Off Delay Time	$t_{d(off)}$				49		ns
Turn-Off Fall Time	t_f				19		ns
Total Gate Charge	Q_g			$V_{DD}=-30V$ $V_{GS}=-10V$	$I_D=-20A$		48
Gate-Source Charge	Q_{gs}		11				nC
Gate-Drain Charge	Q_{gd}		10				nC
Reverse Recovery Time	T_{rr}	$I_F=-20A$			40		nS
Reverse Recovery Charge	Q_{rr}	$dI/dt=100A/\mu s$			56		nC

电参数曲线图 / Electrical Characteristic Curve



电参数曲线图 / Electrical Characteristic Curve


典型电性和热特性 / Typical electrical and thermal properties



外形尺寸图 / Package Dimensions

