

/ Descriptions

TO-252 M M E N 3 MOS 6 5 1 N-CHANNEL MOSFET in a TO-252 Plastic Package.

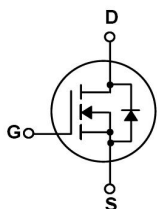
/ Features

$V_{GS} = 10V$, $r_{DS(on)}$ low, Q_g low
Low gate charge, low c_{rss} , fast switching.

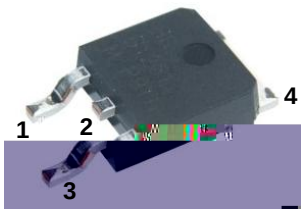
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

/ h_{FE} Classifications & Marking

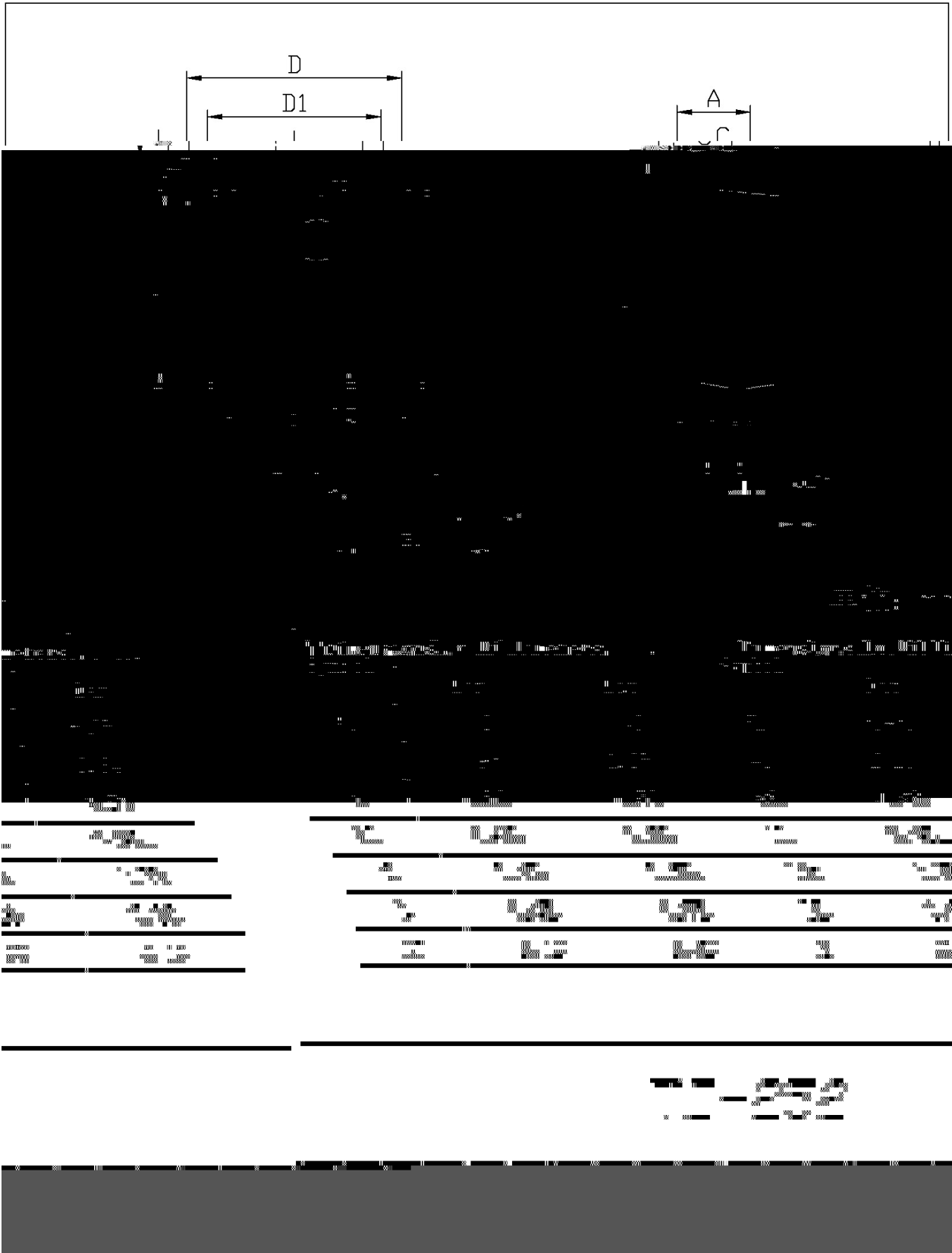
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	$I_D(T_c=25^\circ C)$	5.0	A
Drain Current	$I_D(T_c=100^\circ C)$	2.6	A
Drain Current - Pulsed	I_{DM}	18	A
Gate-Source Voltage	V_{GSS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	210	mJ
Repetitive Avalanche Energy	E_{AR}	10	mJ
Avalanche Current	I_{AR}	4.5	A
Power Dissipation	$P_D(T_c=25^\circ C)$	54	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

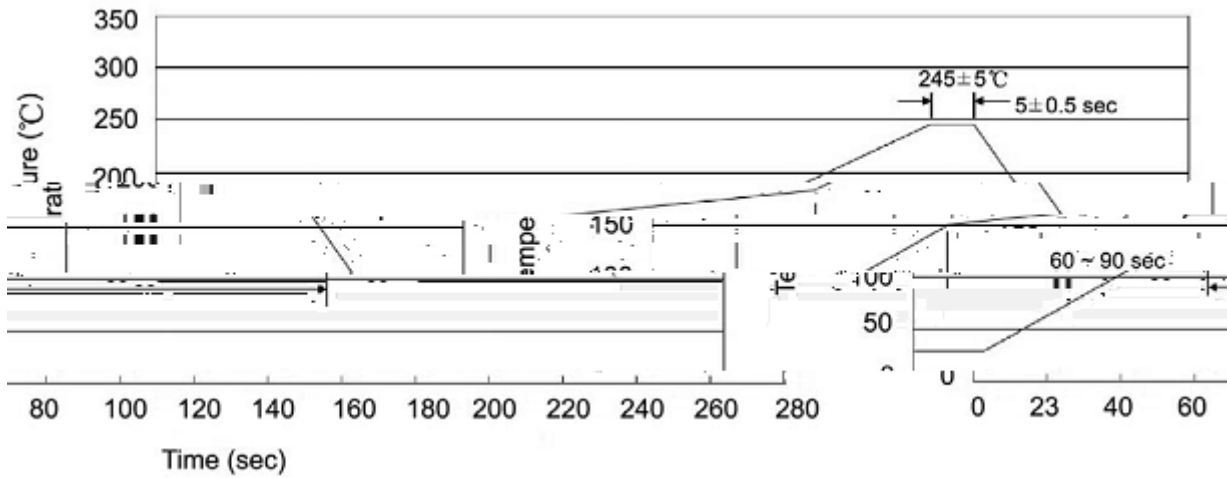
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=650V, V_{GS}=0V$			1.0	μA
		$V_{DS}=480V, T_C=125^\circ C$			10	μA
Gate-Body Leakage Current, Forward	I_{GSS}	$V_{GS}=\pm 30V, V_{DS}=0V$			± 0.1	μA
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	$R_{DS(on)}$	$V_{GS}=10V, I_D=2.25A$		2.0	2.5	Ω
Forward Transconductance	g_{FS}	$V_{DS}=40V, I_D=2.25A$		4.7		S

$V_{GS}=0V, I_D=4.5A, r_{DS(on)}$ 22.3 $V_{GS}=10V, I_D=2.25A$ 2.0 2.5 4.7 265.280480012 0.48

/ Package Dimensions



() / Temperature Profile for IR Reflow Soldering(Pb-Free)



注意

1. 预加热: 25~150 °C, Time: 60~90sec;
2. 峰值温度: 245±5 °C, Duration: 5±0.5sec;
3. 冷却速度: 2~10 °C/sec.

Note:

1. Preheating: 25~150 °C, Time: 60~90sec.
2. Peak Temp.: 245±5 °C, Duration: 5±0.5sec.
3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

温度: 260±5 °C 时间: 10±1 sec. Temp.: 260±5 Time: 10±1 sec

/ Packaging SPEC.

包装形式 / REEL

Package Type 封装形式	Units 包装数量		Dimension 包装尺寸 (unit: mm ³)
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	