

/ Descriptions

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

/ Features

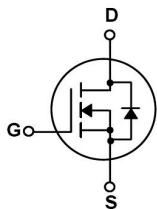
Low gate charge, low crss, fast switching.

/ Applications

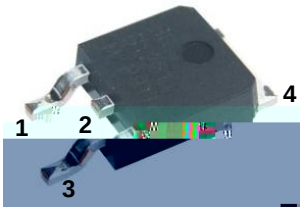
GF2GF

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

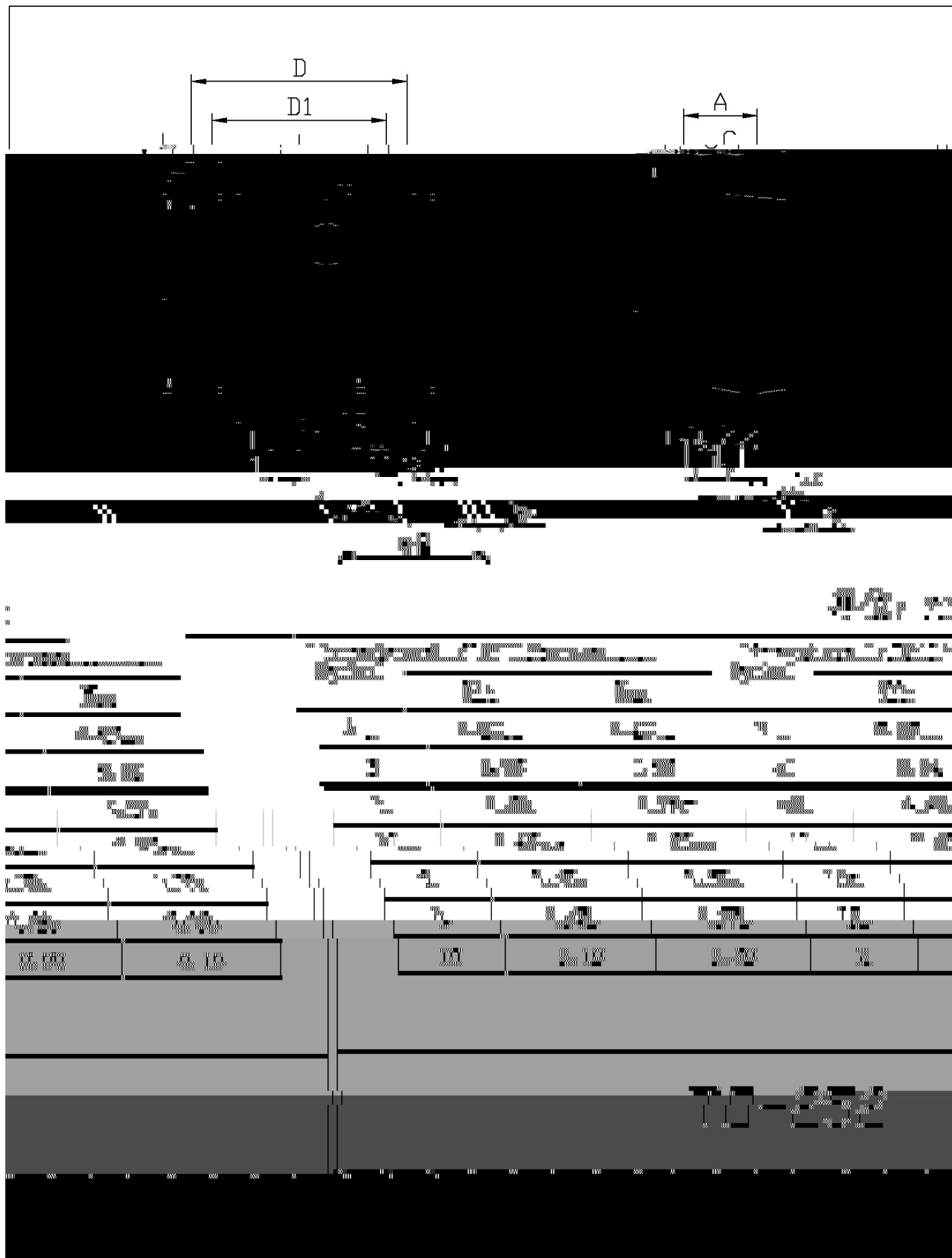
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	5.0	A
Drain Current	$I_D(T_C=100^\circ\text{C})$	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	$P_D(T_C=25^\circ\text{C})$	54	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

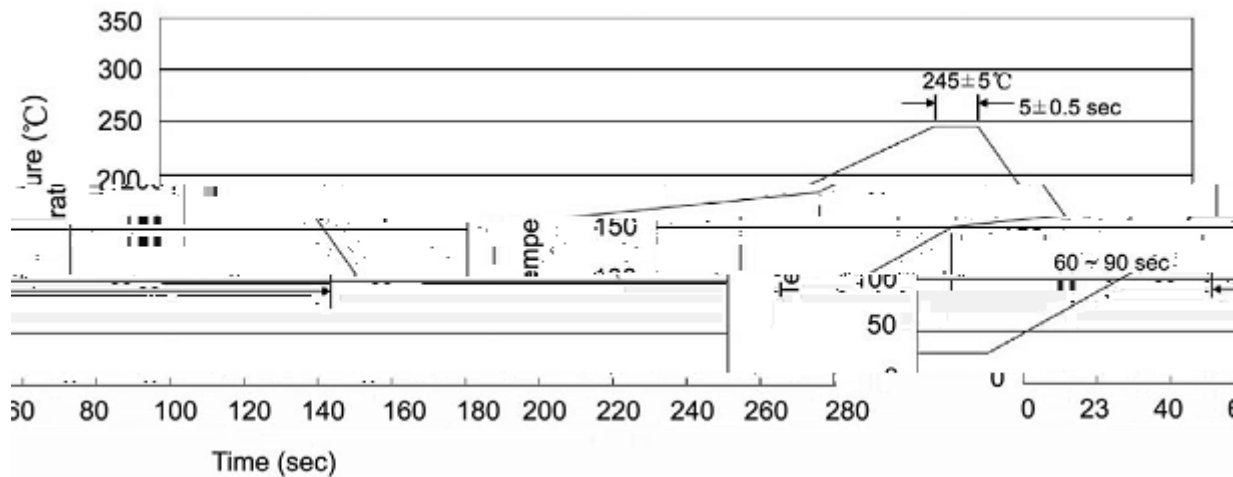
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V \quad I_D=250 \mu A$	650			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=650V \quad V_{GS}=0V$			1.0	A
		$V_{DS}=480V \quad T_C=125^\circ\text{C}$			10	A
Gate-Body Leakage Current, Forward	I_{GSS}	$V_{GS}=\pm 30V \quad V_{DS}=0V$			± 0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS} \quad I_D=250 \mu A$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V \quad I_D=2.25A$		2.0	2.5	
Forward Transconductance	g_{FS}	$V_{DS}=40V \quad I_D=2.25A$		4.7		S

$V_{DS}=650V, V_{GS}=0V, 24.18^\circ\text{C}, I_D=4.5A, \text{ref22.3}$ 265.28048001[2] 0.48

/ Package Dimensions



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



Note:

- | | | | | | |
|---|-------------------|------|-------------------|--------|---|
| 1 | 25 | 150% | 60 | 90sec; | 1.Preheating:25~150%, Time:60~90sec. |
| 2 | 245 ^{±5} | | 5 ^{±0.5} | sec; | 2.Peak Temp.:245 ^{±5} %, Duration:5 ^{±0.5} sec. |
| 3 | | 2 | 10%/sec. | | 3. Cooling Speed: 2~10%/sec. |

/ **Resistance to Soldering Heat Test Conditions**

260^{±5} 10^{±1} sec. Temp.:260±5 Time:10±1 sec

/ **Packaging SPEC.**

/ 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	Units/Inner Box 卷盘/盒	