BRD5N65

Rev.A Sep.-2016

DATA SHEET

/ Descriptions

TO-252 ṂṂꞋ N ى MOS ʆ ῴ Ẕ ᆨ 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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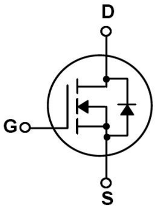
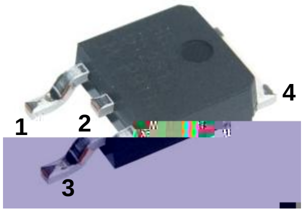
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

/ Equivalent Circuit



/ Pinning



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

/ h_{FE} Classifications & Marking

ȍ ᴍ ᆨ ب ˝ See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	5.0	A
Drain Current	I_D(Tc=100)	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(Tc=25)	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=250μA	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V	V_{GS}=0V			1.0	μA
		V_{DS}=480V	T_C=125			10	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=2.25A		2.0	2.5	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V	I_D=2.25A		4.7		S
[redacted]	V_{SD} 16228	V_{GS}=0V 24.18	I_S=4.5A	ref22.3		265.28 1.4 04f(001[2	0.48

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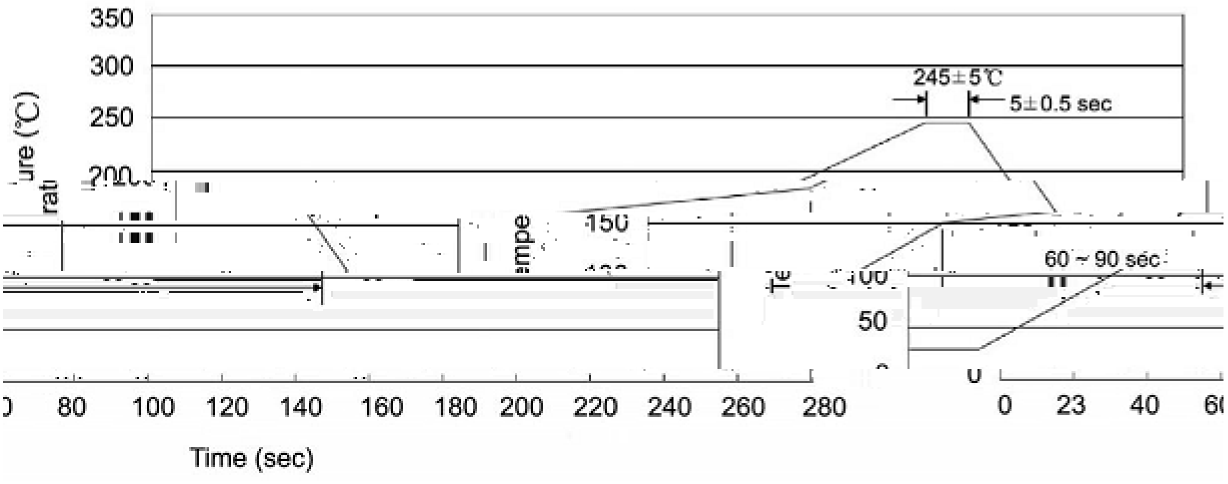
/ Package Dimensions

	0. 90
	0. 10

D	[illegible]	[illegible]	[illegible]	[illegible]
D1	5. 10	5. 50	K	0. 0

TO-252

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



ب ˝ χ	Note:
1 ỉ ♬ □ ẙ 25 Ḱ 150 ɫ ı `H ڑ 60 Ḱ 90sec;	1.Preheating:25~150 ɫ , Time:60~90sec.
2 Ś Ö □ ẙ 245 ° 5 ɫ ı `H ڑ ʿY ﾑ ㅉ 5 ° 0.5sec;	2.Peak Temp.:245 ° 5 ɫ , Duration:5 ° 0.5sec.
3 ì ˙ ˥ ˛ ɔ ﻫ ẙ ㅉ 2 Ḱ 10 ɫ /sec.	3. Cooling Speed: 2~10 ɫ /sec.

/ Resistance to Soldering Heat Test Conditions

□ ẙ χ 260 ° 5 ɫ `H ڑ χ 10 ° 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

ᴒ` γ ㄴ / 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	Units/Inner Box 只/盒	