BRD5N65

Rev.A Sep.-2016

DATA SHEET

/ Descriptions

TO-252 ṂṂ Ŀ N ى MOS ʆ ῴ Ẕ ᒉ N-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

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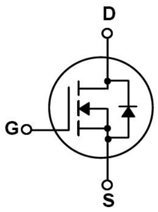
Low gate charge, low crss, fast switching.

/ Applications

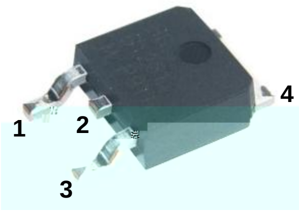
ཀ ߙ ׀ ' GF2GF ج Ώ ⁼ ׀ ' Ȁ ҥ

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 м ٩ ب ˝ See Marking Instructions.

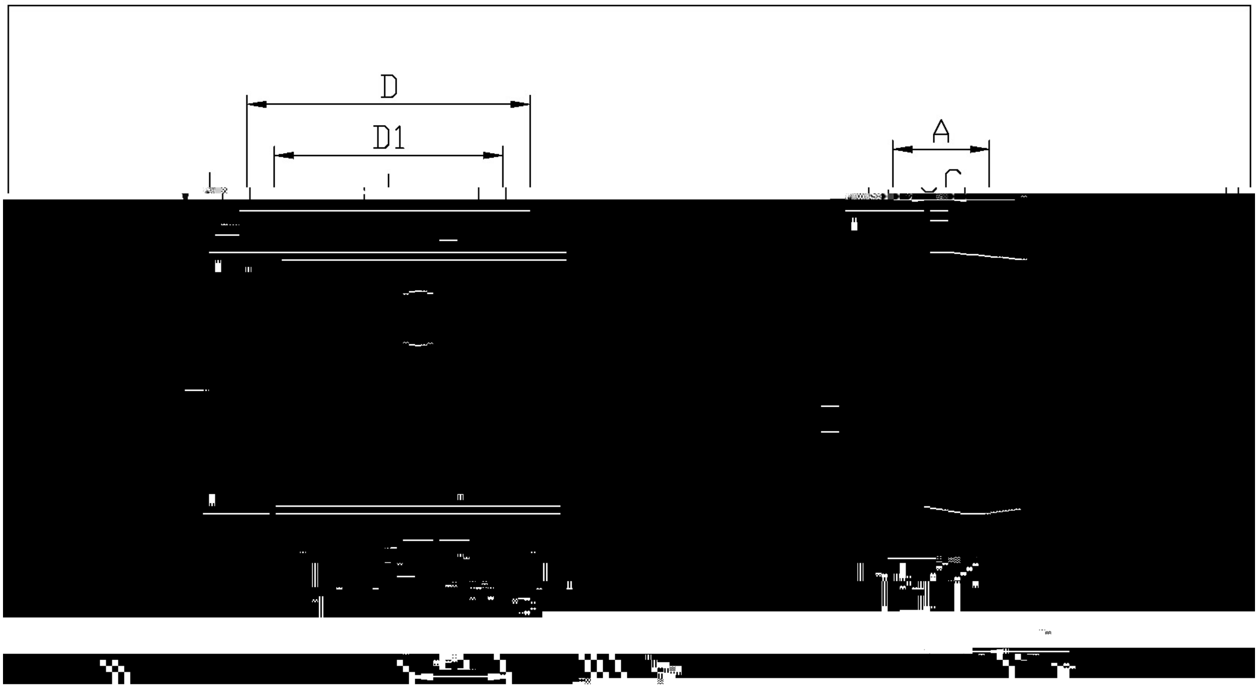
v ̏Ω Parameter	ɣ ᴺ Symbol	̏ΩӨ Rating	ᴅ ʜ Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	5.0	A
Drain Current	I_D(Tc=100)	2.6	A
Drain Current - Pulsed	I_{DM}	18	A
Gate-Source Voltage	V_{GSS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	210	mJ
Repetitive Avalanche Energy	E_{AR}	10	mJ
Avalanche 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	

v ̏Ω Parameter	ɣ ᴺ Symbol	╜ ꞉ᛚ ꞇ Test Conditions	ῳ ṇ Ө Min	Ɛ ʒ Ө Typ	ῳ ᶻ Ө Max	ᴅ ʜ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V V_{GS}=0V			1.0	A
		V_{DS}=480V T_C=125			10	A
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 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	
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=2.25A		4.7		S

[redacted]

V_{SD}16228V_{GS}=0V 24.18 I_S=4.5A ref22.3 265.2804f(001[2 0.48

/ Package Dimensions

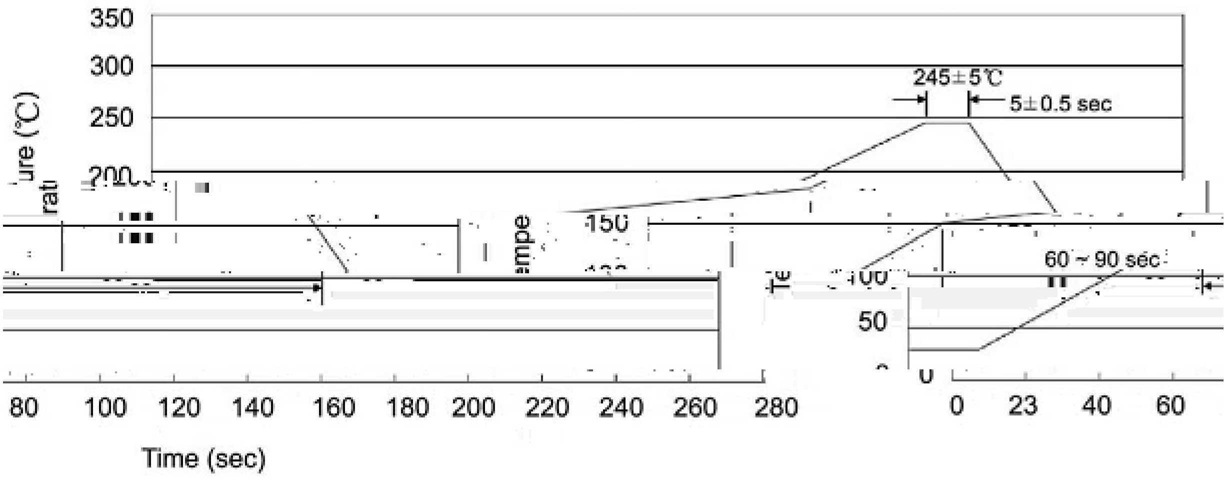


	4.75
	0.95
25	1.75
.60	0.90
).00	0.10

b1	0.45	0.55	L1	0.45
C	0.45	0.55	L2	1.
D	6.45	6.75	L3	0
D1	5.10	5.50	K	

TO-252

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



ب ˝ χ
1 ỉ ♬ □ ỷ 25 Ḱ 150 ƚ ı `H ڑ 60 Ḱ 90sec;
2 Š Ȫ □ ỷ 245 ° 5 ƚ ı `H ڑ `Y ለ ꭚ 5 ° 0.5sec;
3 ì ˙ Ꮖ ˛ ɔ ൿ ỷ ꭚ 2 Ḱ 10 ƚ /sec.

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

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

ი ` ɣ Ŀ / 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	