BRB7N65

Rev.E Aug.-2017

DATA SHEET

/ Descriptions

TO-263 Ṃ Ṃ Ŀ N ǰ MOS ʃ ᾧ̃ Ẕ ˥ N-CHANNEL MOSFET in a TO-263 Plastic Package.

/ Features

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Low gate charge, low crss, fast switching.

/ Applications

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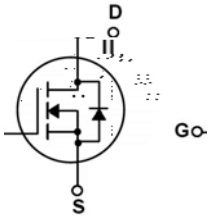
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

/ Equivalent Circuit



/ Pinning



PIN1 χ G PIN 2,4 χ D PIN 3 χ S

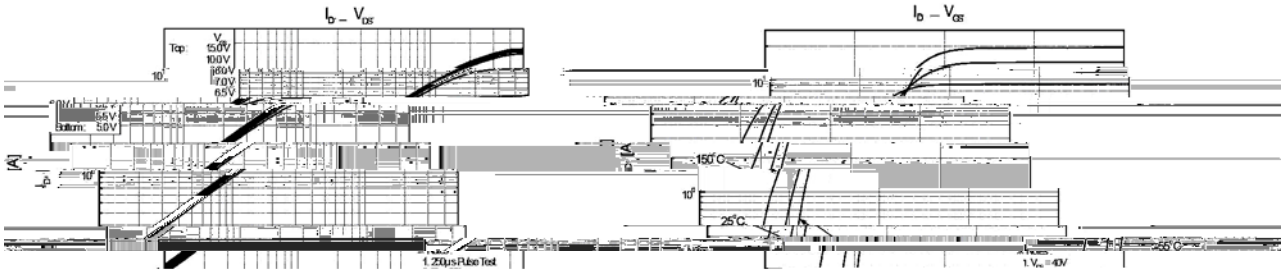
/ h_{FE} Classifications & Marking

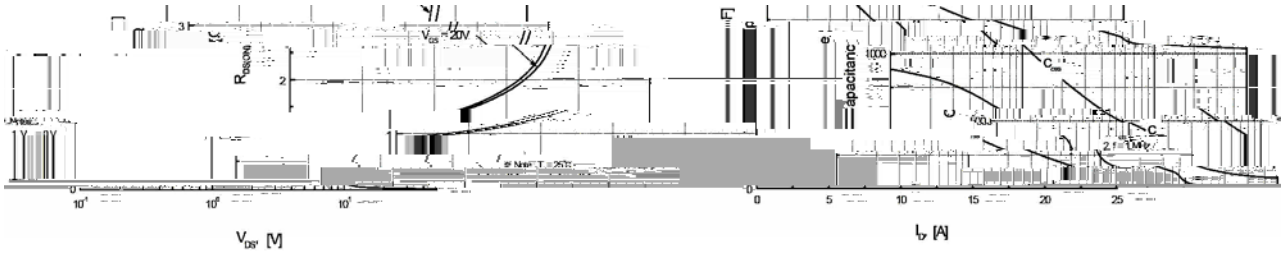
ð ʍ ˥ ب ˝ See Marking Instructions.

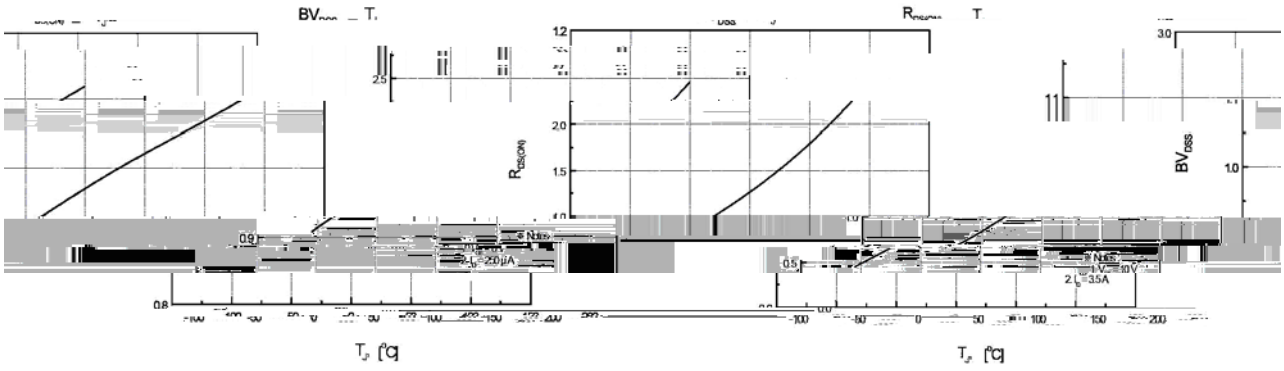
v ̈Ω Parameter	ɬ N Symbol	̈Ω Ö Rating	D Ĥ Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	7.0	A
Drain Current	I_D(Tc=100)	4.4	A
Drain Current - Pulsed	I_{DM}	28	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	420	mJ
Repetitive Avalanche Energy	E_{AR}	14.7	mJ
Avalanche Current	I_{AR}	7.0	A
Power Dissipation	P_D(Tc=25)	147	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

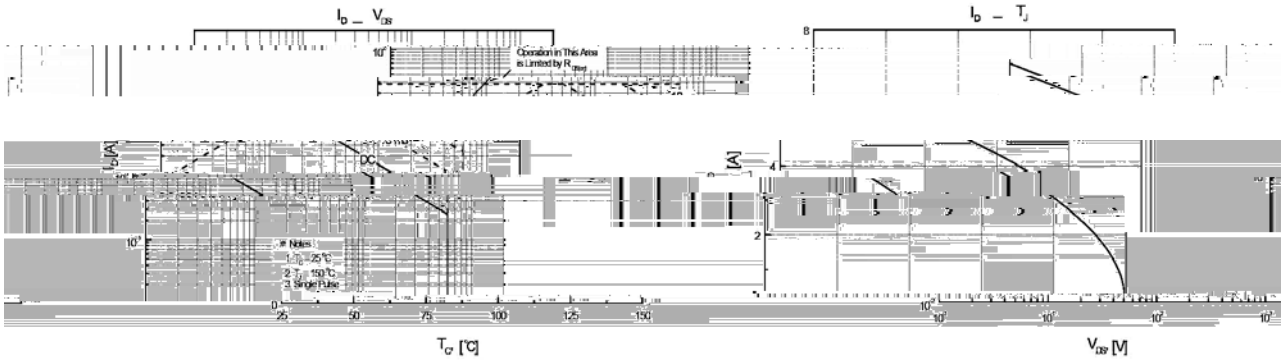
v ̈Ω Parameter	ɬ N Symbol	⊥⊥ ;ǀ Ţ Test Conditions	ω ṇ Ö Min	Ɛ ʒ Ö Typ	ω ᶻ Ö Max	D Ĥ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V V_{GS}=0V			1.0	A
		V_{DS}=520V T_C=125			100	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±100	nA
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=3.5A			1.3	
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=3.5A		8.2		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=7.0A			1.4	V

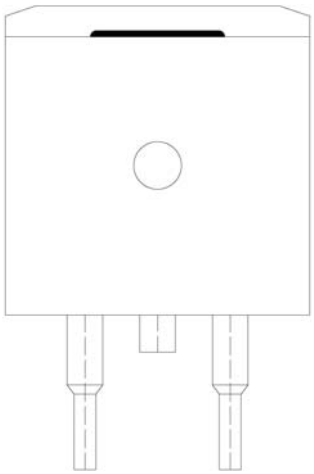
/ Electrical Characteristic Curve











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7N65 χ	ѭ ʒ ᴺ ᴵ
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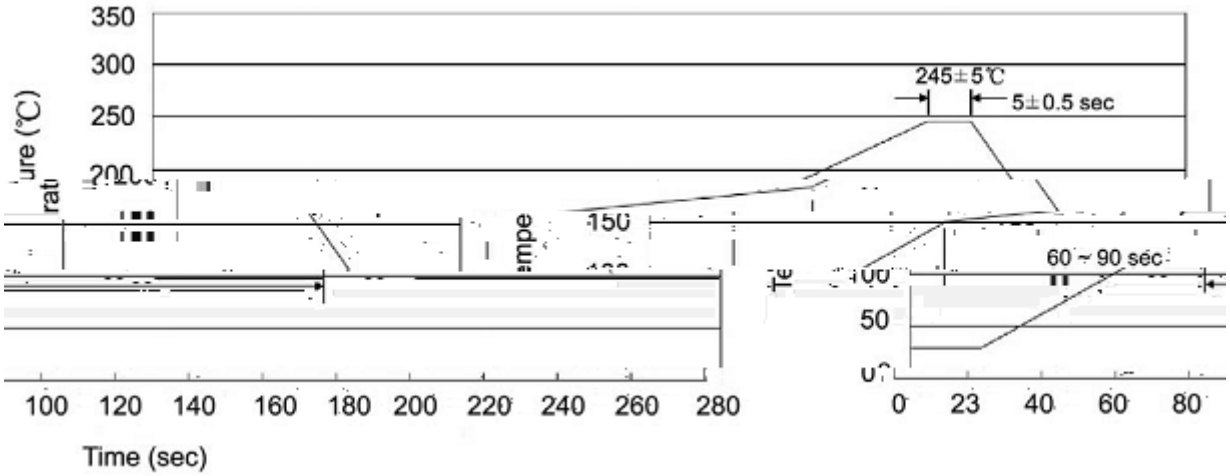
Note:

BR:	Company Code
7N65:	Product Type.
****:	Lot No. Code, code change with Lot No.

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



ب ˝ χ

1 ⺊ ♬ □ ỷ 25 Ḱ 150 ɫ ı `H ڑ 60 Ḱ 90sec;

2 Š Ö □ ỷ 245 ° 5 ɫ ı `H ڑ ˋY ⺈ ⺮ 5 ° 0.5sec;

3 ì ˙ ⺈ ˛ ɔ ⺌ ỷ ⺮ 2 Ḱ 10 ɫ /sec.

Note:

1.Preheating:25~150 ɫ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɫ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɫ /sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

ɔ` γ ⊢ / REEL

Package Type	Units					Dimension (unit mm^3)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
TO-263	800	1	800	5	4,000	13 ×24	360×360×50	385×257×392

˘ ˥ γ ⊢ / TUBE