"Yت / Descriptions

TO-251 ṂṂ Ŀ N ڜ ʃ ѽ Ẓ ٦

N-CHANNEL MOSFET in a TO-251 Plastic Package.

◕ È / Features

V_{DS} (V) = 100V I_D =37A (V_{GS} = ±20V)

$R_{DS(ON)}$@10V≤25mR(Typ.20mR)

$R_{DS(ON)}$@4.5V≤35mR(Typ.25mR)

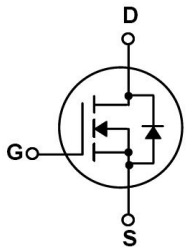
ɲ ғ β HF Product.

ѵ ڍ / Applications

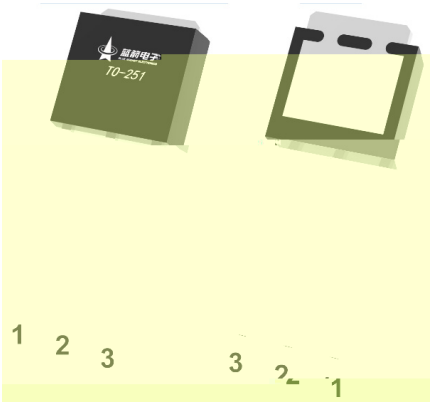
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Boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.

Л ق ڈ ≠ ع / Equivalent Circuit



ã ﻉ ŭ / Pinning



PIN1 χ G PIN 2 χ D PIN 3 χ S

ł. ʜ ڸ / Marking

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See Marking Instructions.

v ‴Ω Parameter		ϒ N Symbol	‴Ω Ö Rating	D Ч Unit
Drain-Source Voltage		V_{DSS}	100	V
Drain Current		I_D(Tc=25)	37	A
Drain Current - Pulsed		I_{DM}	117	A
Gate-Source Voltage		V_{GS}	±20	V
Avalanche Current		I_{AS}	7	A
Single Pulsed Avalanche Energy		E_{AS}	14.4	mJ
Power Dissipation		P_D(Tc=25)	68	W
Storage Temperature Range		T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	t ≤ 10s	$R_{\theta JA}$	20	/W

⁄ ∃ ̃Ạ / Electrical Characteristics(Ta=25 ⅃)

v ̈Ω Parameter	ϒ N Symbol	⅄ ⁝ ↾ ϯ Test Conditions	ѡ ṇ Ө Min	Ɛ ʒ Ө Typ	ѡ ᶻ Ө Max	D Ꮒ Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=50V R_L=5.5Ω R_{GEN}=3.0Ω		5		ns
Turn-On Rise Time	t_r			3.2		
Turn-Off Delay Time	$t_{d(off)}$			21		
Turn-Off Fall Time	t_f			3		

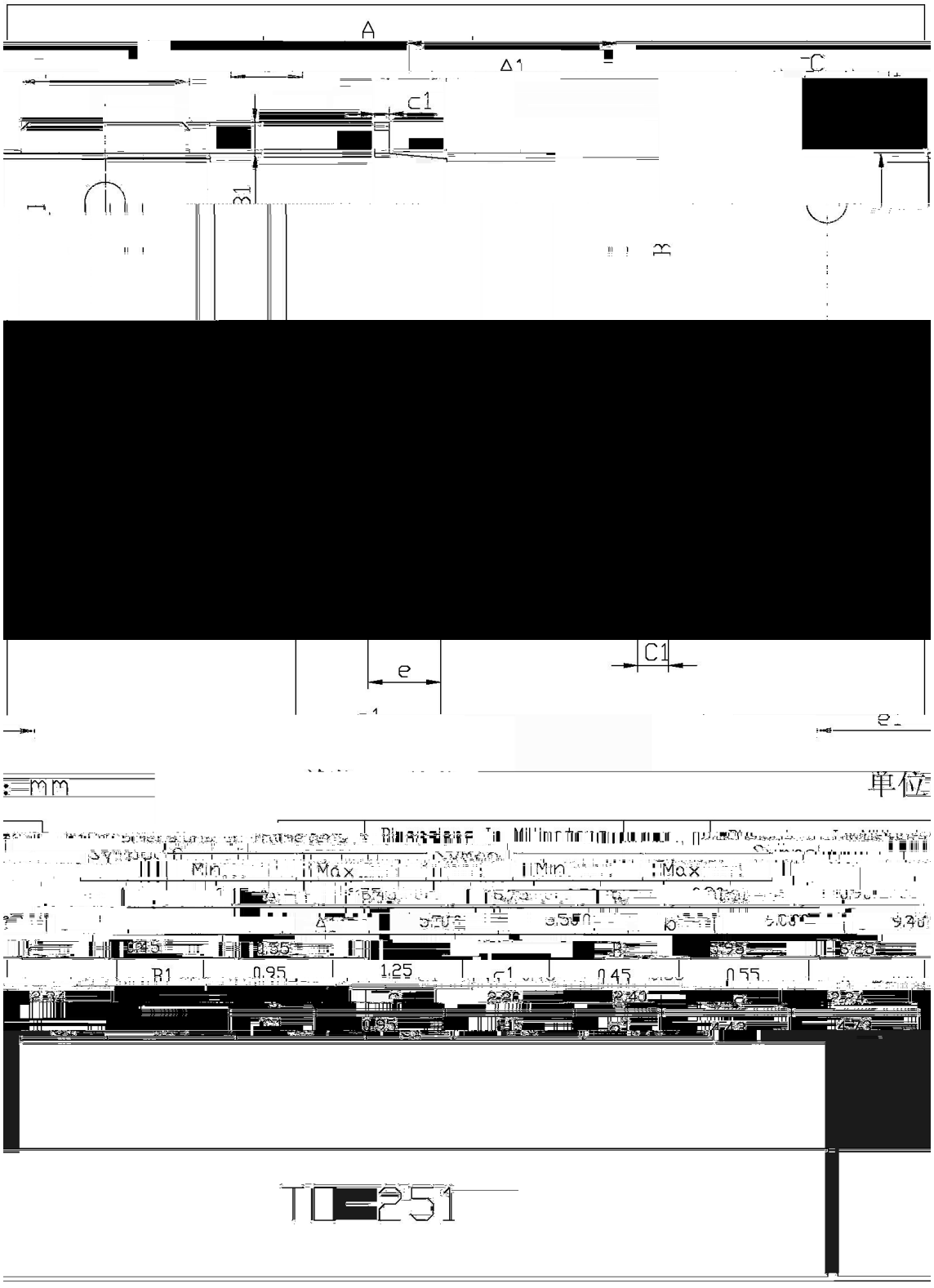
BRCS250N10SIP

Rev.A Oct.-2023

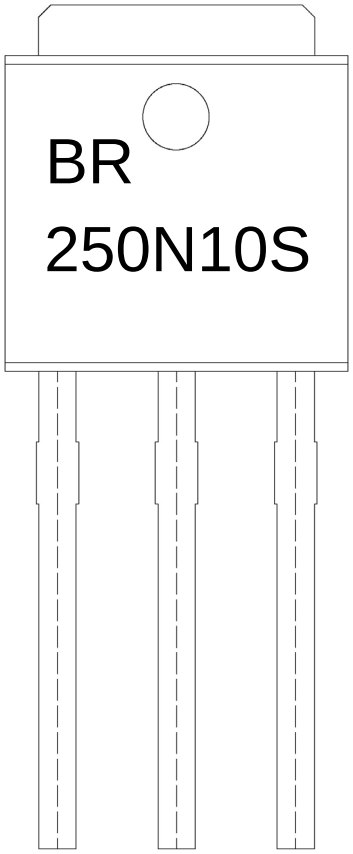
DATA SHEET

BRCS250N10SIP

ᵘ ĖÒĻ ƒ / Package Dimensions



ł. Ļ"Ω / Marking Instructions



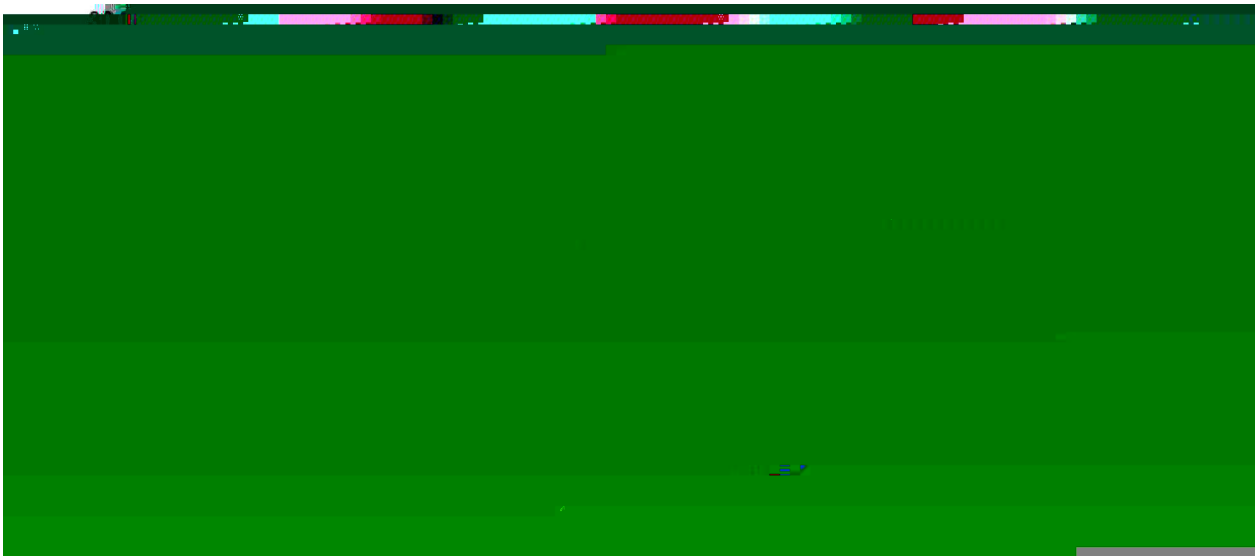
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BR χ	ѭ ϛ и Ґђ
583Q43V χ	ѭ ȝ ᴺ Ґђ
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Note:

BR:	Company Code
250N10S:	Product Type Code
****:	Lot No. Code, code change with Lot No

↓ ș ╕ẅ´E ɣ ƒ (ὼ ᴈ) / Temperature Profile for Dip Soldering(Pb-Free)



ب ˝ χ

1 Ĺ ♬ □ ẙ 25 Ḱ 150 ɬ ı `H ڑ 60 Ḱ 90sec;

2 Š Ө □ ẙ 255 ° 5 ɬ ı `H ڑ `Y ﾊ ㎞ 5 ° 0.5sec;

3 ì ˙ ﾘ ˛ ɔ ଌ ẙ ㎞ 2 Ḱ 10 ɬ /sec.

Note:

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

2.Peak Temp.:255 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

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