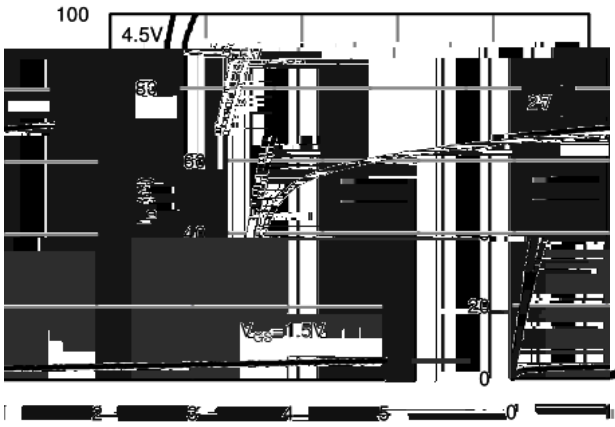
v ̈Ω̣ Parameter	ɬ N Symbol	̈Ω̣Ö Rating	D Ḫ Unit
Drain-Source Voltage	V_{DSS}	20	V
Drain Current [G]	I_D(Tc=25Ṇ)	30	A
	I_D(Tc=100Ṇ)	20	A
Drain Current - Pulsed [C]	I_{DM}	120	A
Maximum Body-Diode Continuous Current [G]	I_S	30	A
Gate-Source Voltage	V_{GS}	±12	V
Avalanche Current [C]	I_{AS}	12	A
Avalanche energy L=0.5mH [C]	E_{AS}	115	mJ
Power Dissipation [B]	P_D(Tc=25Ṇ)	100	W
	P_D(Tc=100Ṇ)	50	W
Power Dissipation [A]	P_{DSM}(T_A=25Ṇ)	2.5	W
	P_{DSM}(T_A=70Ṇ)	1.6	W
Junction and Storage Temperature Range	$T_{j̃}$ T_{stg}	-55˙ 150	

v ̈Ω̣ Parameter	ɬ N Symbol	⊥⊥ ;ɬ ̄ Ţ Test Conditions	ω̣ ṇ Ö Min	Ɛ ʒ Ö Typ	ω̣ ᶻ Ö Max	D Ḫ Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	20			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V V_{GS}=0V			1.0	A

T_J.48 TD.0016 Tc(A)TjET55.62 331.04 482.46 .48001 ref55.62 312.56

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
ᴠ Ώ̣	ᛘ ᴺ	ᒧ ᛁ ᛂ ᛃ	ω̣ ṇ Ö	Ɛ ʒ Ö	ω̣ ᶻ Ö	ᴅ ᴇ

/ Electrical Characteristic Curve



On-Region Characteristics

Fig 1

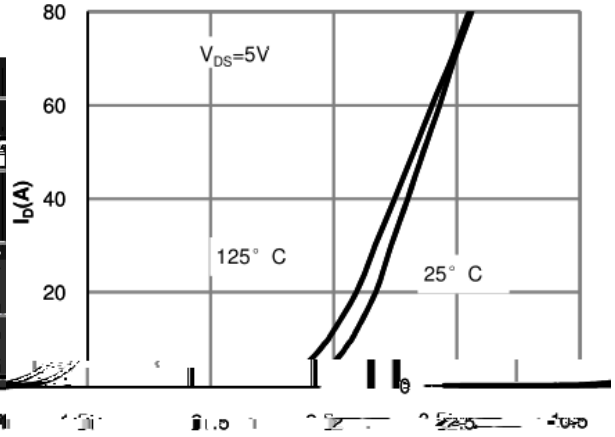
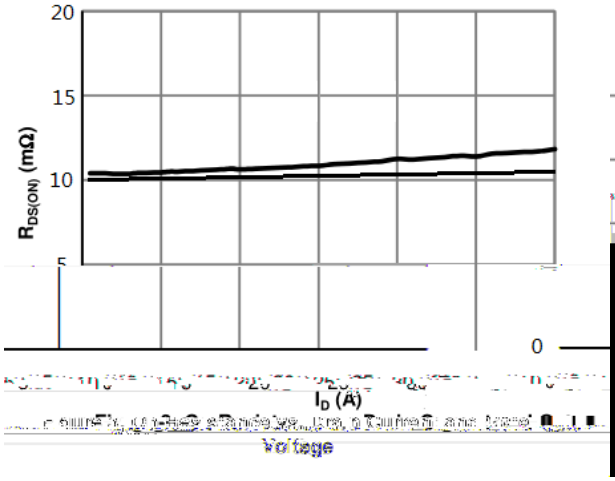
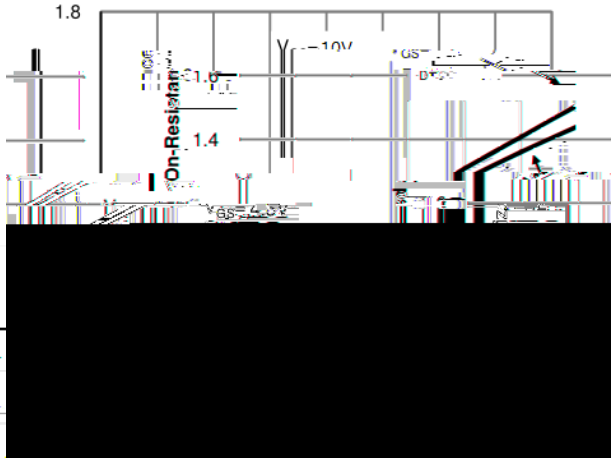


Figure 2: Transfer Characteristics



Voltage



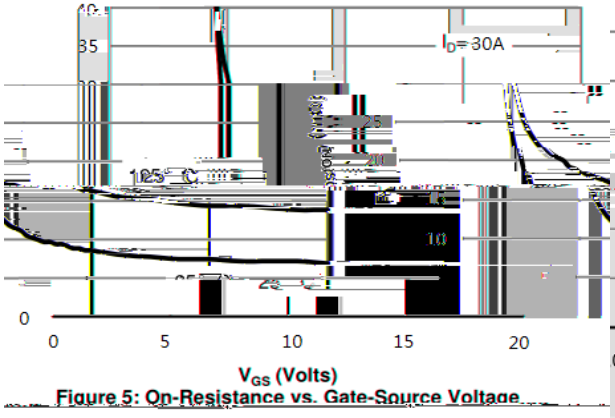


Figure 5: On-Resistance vs. Gate-Source Voltage

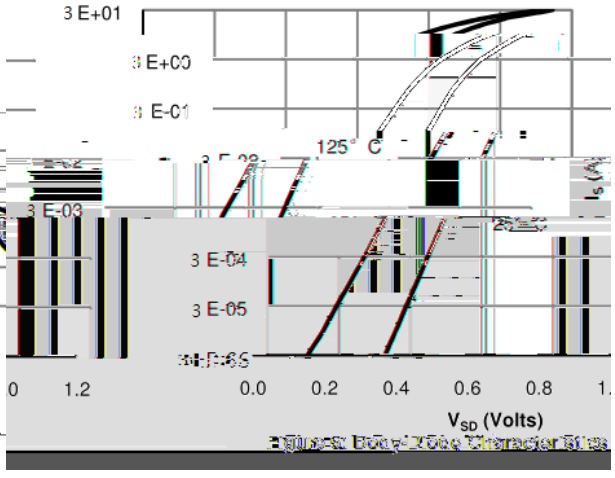
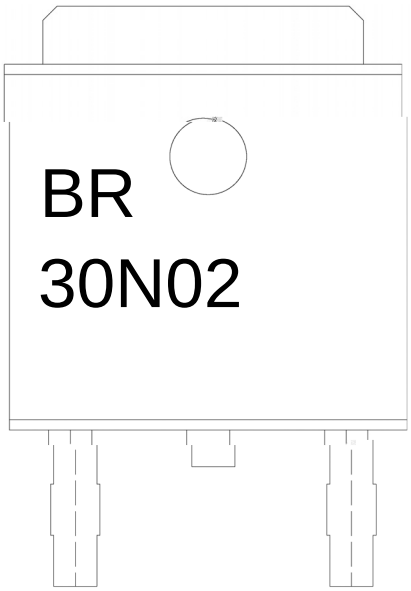


Figure 6: Body-Diode Characteristics

BRCS30N02DP

/ Marking Instructions



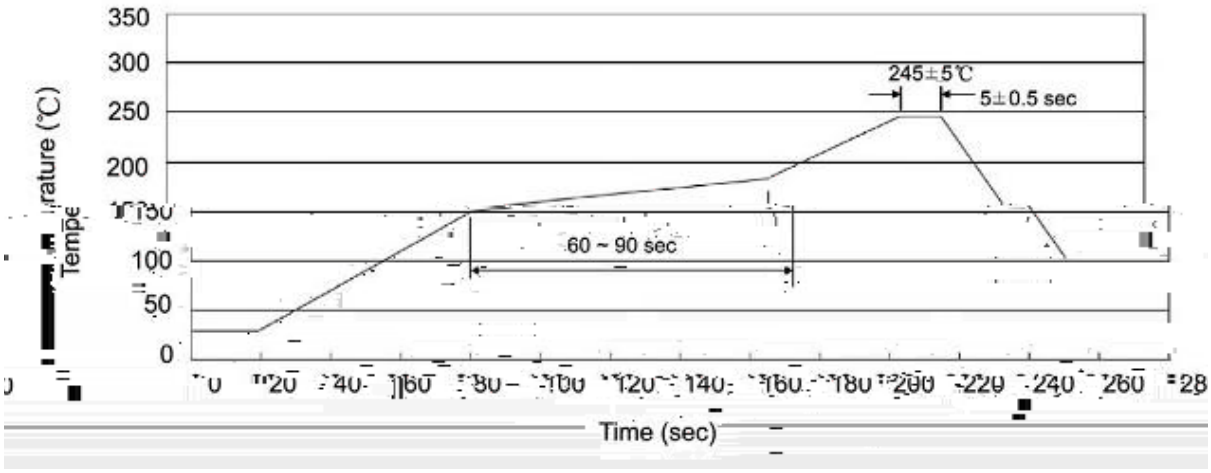
ب ˝ χ

BR χ	⌘ ⅔ ᴵᴵ Ɱ
30N02 χ	⌘ ⅋ ᴺ Ɱ
---- χ	⌘ ⅃ ⅎ ŋ̈ ᴺ Ɱ ⅃ ⅊ ⅃ ⅎ ŋ̈ ᴺ Ψ ⅋

Note:

BR:	Company Code
30N02:	Product Type Code.
****:	Lot No. Code, code change with Lot No.

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



ب ˝ χ

1 ǂ ♬ □ ỷ 150 Ḱ 180 ɬ ı `H ڑ 60 Ḱ 90sec;

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

3 ì ˙ ⺈ ˛ ɔ ﻫ ỷ ⺮ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:150~180 ɬ , Time:60~90sec.

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

3. Cooling Speed: 2~10 ɬ /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 260 ° 5 ɬ `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)
						ρ		

˘ ˥ γ ⊢ / TUBE

Package Type	Units					Dimension		(unit mm^3)

/ Notices