v ¨Ω Parameter	¬ N Symbol	¨Ω Ë Rating	D Ð Unit
Drain-Source Voltage	V_{DSS}	20	V
Drain Current [G]	I_D(Tc=25 Ñ)	30	A
	I_D(Tc=100 Ñ)	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=25 Ñ)	100	W
	P_D(Tc=100 Ñ)	50	W
Power Dissipation [A]	P_{DSM}(T_A=25 Ñ)	2.5	W
	P_{DSM}(T_A=70 Ñ)	1.6	W
Junction and Storage Temperature Range	T_j T_{stg}	-55 150	

v ¨Ω Parameter	¬ N Symbol	Ð ¦ Ţ Test Conditions	ω ņ Ë Min	Ɛ ʒ Ë Typ	ω ² Ë Max	D Ð 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

v ̋Ω Parameter	ϒ N Symbol	╨ ⁝ ⁾ ţ Test Conditions	ѡ ṇ Ө Min	Ɛ ȝ Ө Typ	ѡ ᶻ Ө Max	ɒ Ꮋ Unit

/ Electrical Characteristic Curve

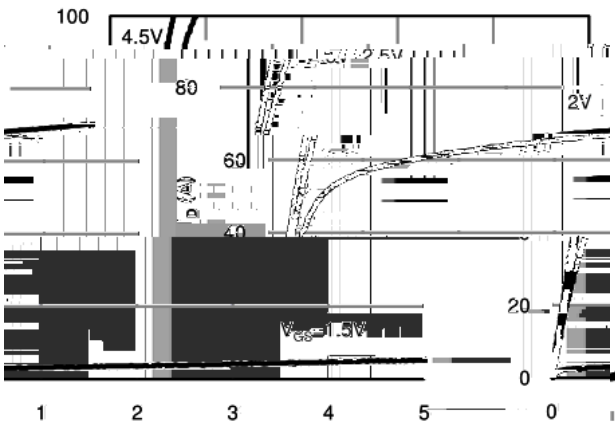


Fig 1: On-Region Characteristics

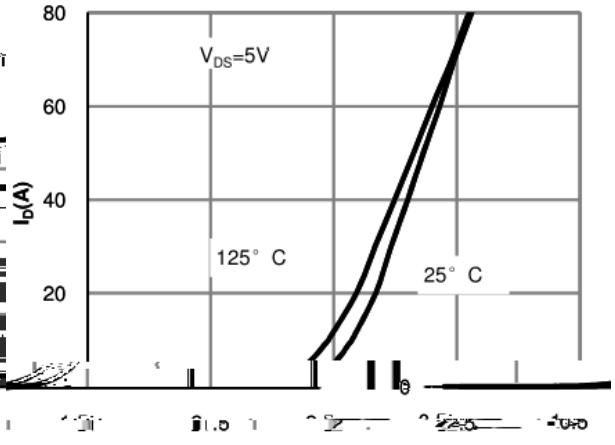
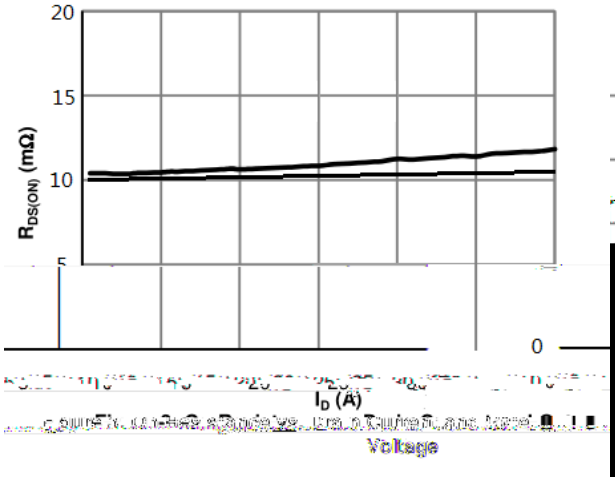
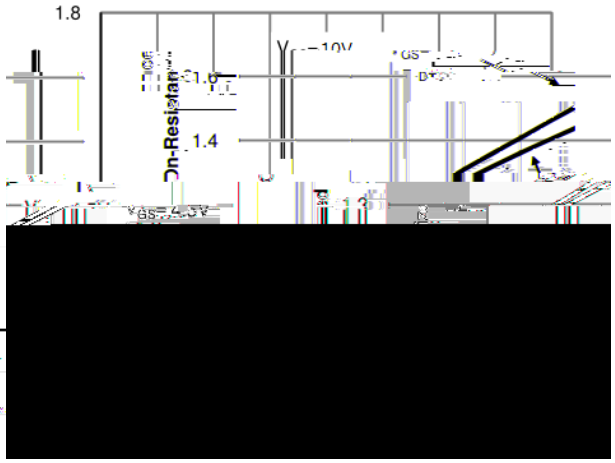


Figure 2: Transfer Characteristics



Voltage



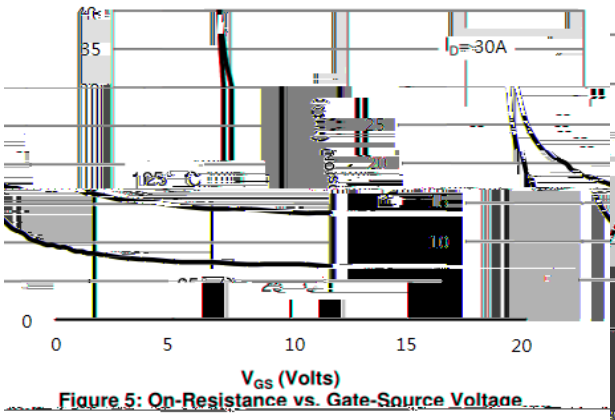
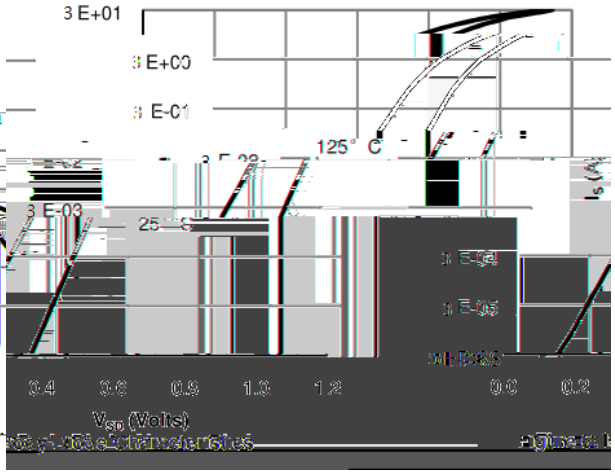
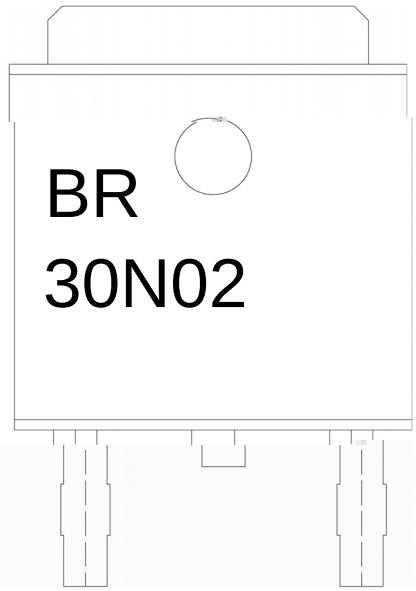


Figure 5: On-Resistance vs. Gate-Source Voltage



BRCS30N02DP

/ Marking Instructions



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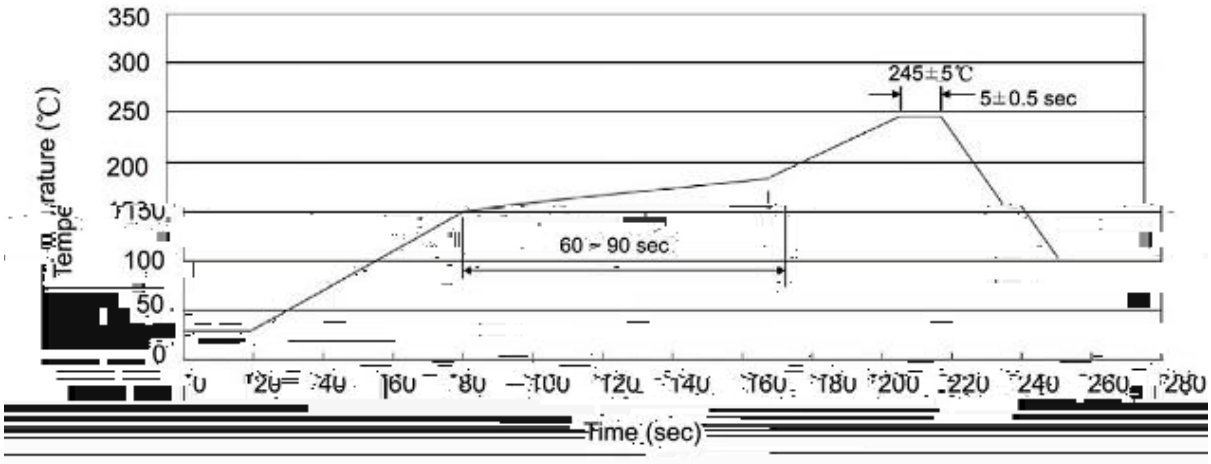
Note:

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 Ĺ ♬ □ ỷ 150 Ḱ 180 ł ı ˋH ڑ 60 Ḱ 90sec;

2 Š Ë □ ỷ 245 ° 5 ł ı ˋH ڑ ˋY ﾊ ㎞ 5 ° 0.5sec;

3 ì ˙ ﾘ ˛ ɔ ﻉ ỷ ㎞ 2 Ḱ 10 ł /sec.

Note:

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

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

3. Cooling Speed: 2~10 ł /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 260 ° 5 ł ˋH ڑ χ 10 ° 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

ɔ ` ﾔ Ł / REEL

Package Type	Units					Dimension		(unit mm³)
						ρ		

˛ ｱ ﾔ Ł / TUBE

Package Type	Units					Dimension		(unit mm³)

/ Notices