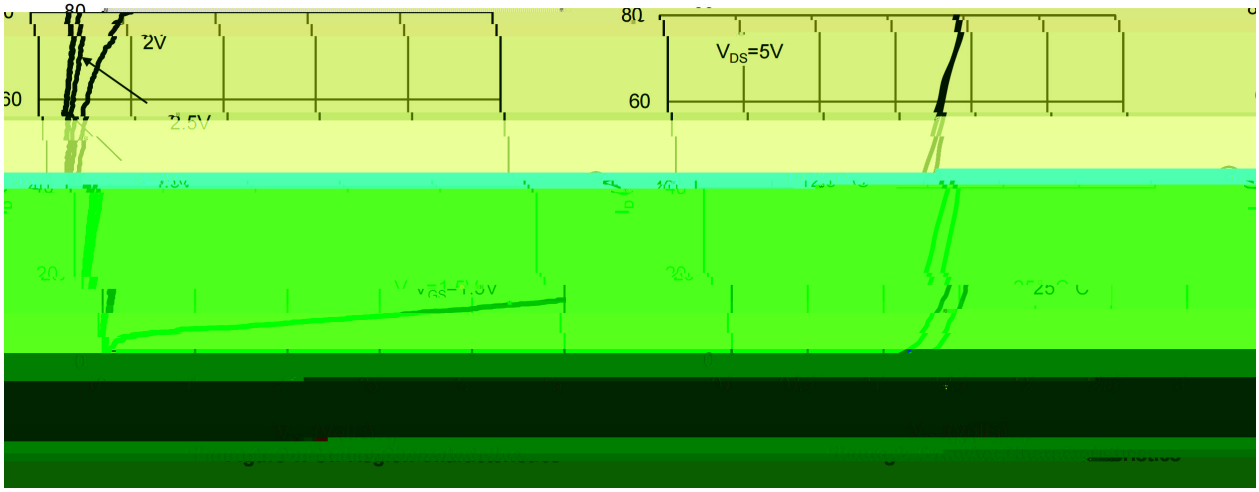
TO-252 ḾḾḪN ѯ ʃ ѽ Ƶ ᒣ
N-CHANNEL MOSFET in a TO-252 Plastic Package.

V_{DS} (V) = 20V I_D =95A (V_{GS} = ± 20V)
$R_{DS(ON)}$@4.5V ≤ 4mR(Typ.3.7mR)
$R_{DS(ON)}$@2.5V ≤ 6mR(Typ.5.5mR)
$R_{DS(ON)}$@2.0V ≤ 15mR(Typ.8mR)
ḛ ꜰ β HF Product.

v ̈Ω Parameter		ϒ N Symbol	̈Ω Ö Rating	D Ч Unit
Drain-Source Voltage		V_{DSS}	20	V
Drain Current		I_D(Tc=25)	95	A
Drain Current - Pulsed		I_{DM}	212	A
Gate-Source Voltage		V_{GS}	±12	V
Avalanche Current		I_{AS}	24	A
Single Pulsed Avalanche Energy		E_{AS}	201	mJ
Power Dissipation		P_D(Tc=25)	55	W
Storage Temperature Range		T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	t ≤ 10s	$R_{\theta JA}$	20	/W
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	2.27	

v ̈Ω Parameter	ϒ N Symbol	‗ ː ̄ ţ Test Conditions	ω ṇ Ö Min	Ɛ ʒ Ö Typ	ω ᶻ Ö Max	D Ч Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	20	24		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V V_{GS}=0V			1.0	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±12V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	0.4	0.7	1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=4.5V I_D=15A		3.7	4	m
		V_{GS}=2.5V I_D=10A		5.5	6	
		V_{GS}=2.0V I_D=6.0A		8	15	
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A			1.25	V
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V, f=1MHz		2.2		
Input Capacitance	C_{iss}	V_{DS}=10V V_{GS}=0V f=1.0MHz		2700		pF
Output Capacitance	C_{oss}			370		
Reverse Transfer Capacitance	C_{rss}			360		
Total Gate Charge	Qg(4.5V)	V_{GS}=4.5V V_{DS}=10V I_D=20A		31		nC
Gate Source Charge	Q_{gs}			5.2		
Gate Drain Charge	Q_{gd}			8		

/ Electrical Characteristic Curve



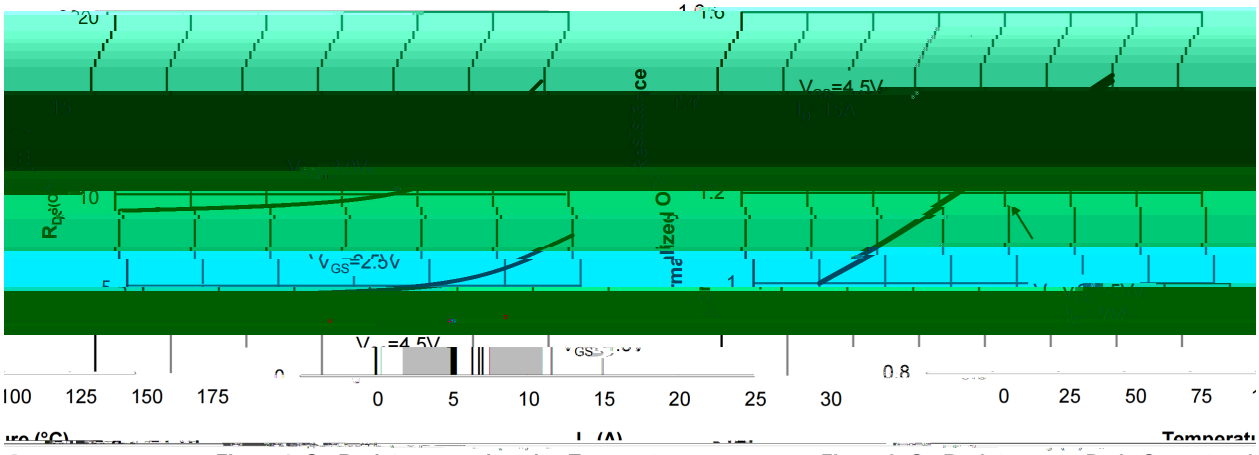


Figure 4: On-Resistance vs. Junction Temperature

Figure 3: On-Resistance vs. Drain Current and Voltage

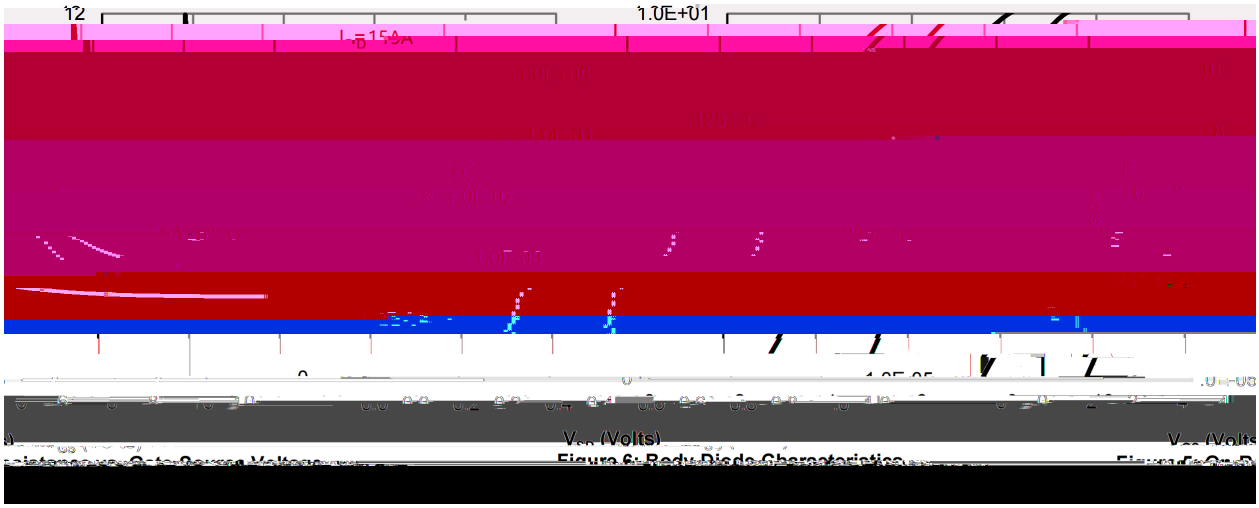
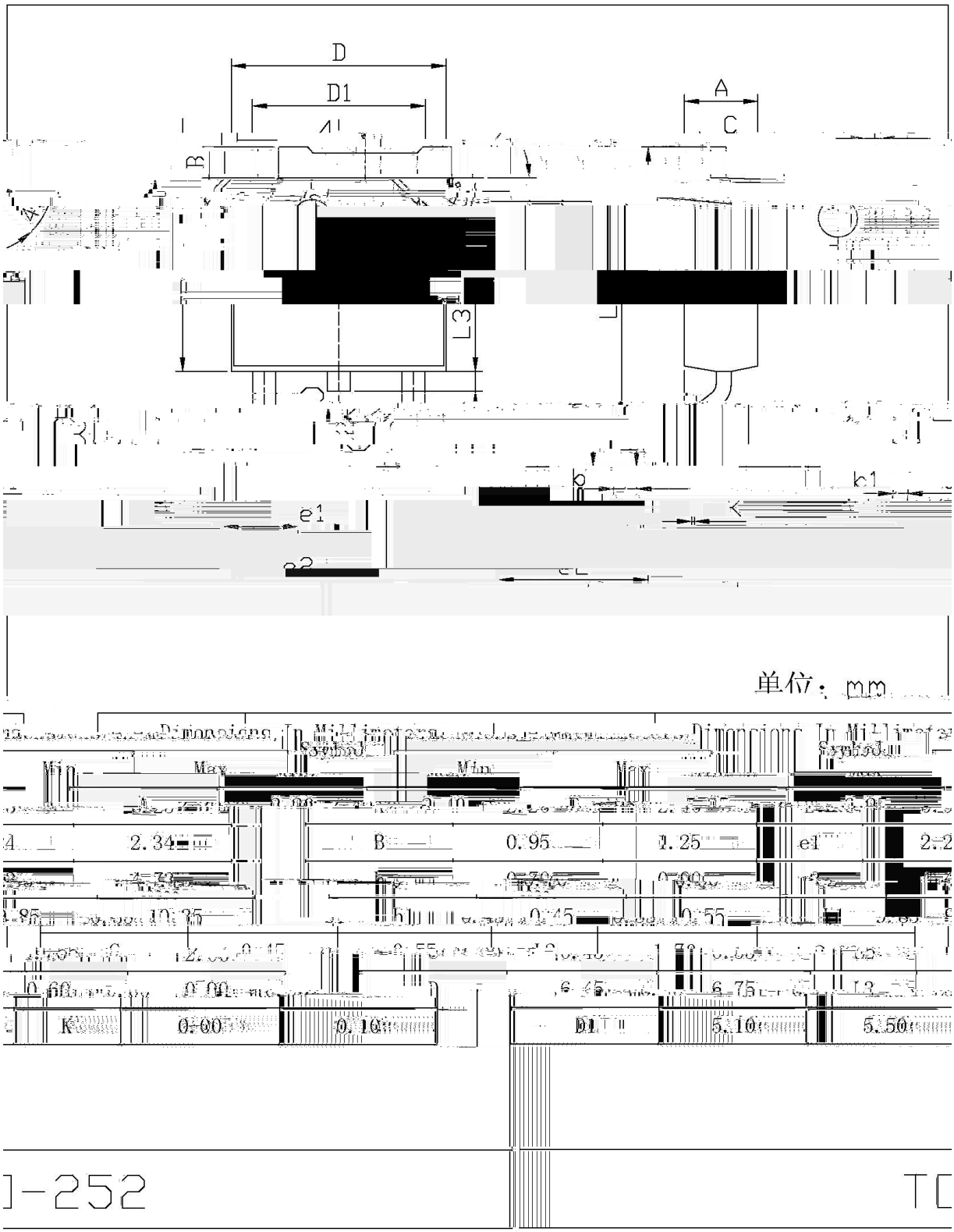


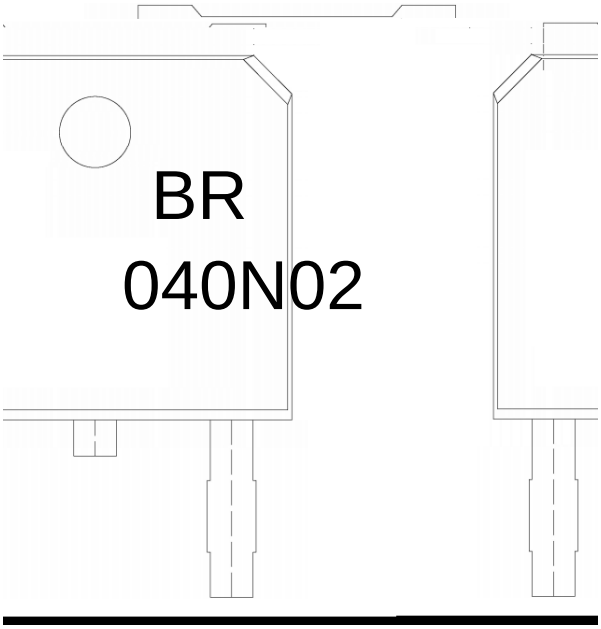
Figure 6: Body Diode Characteristics

BRCS040N02DP

/ Package Dimensions



/ Marking Instructions

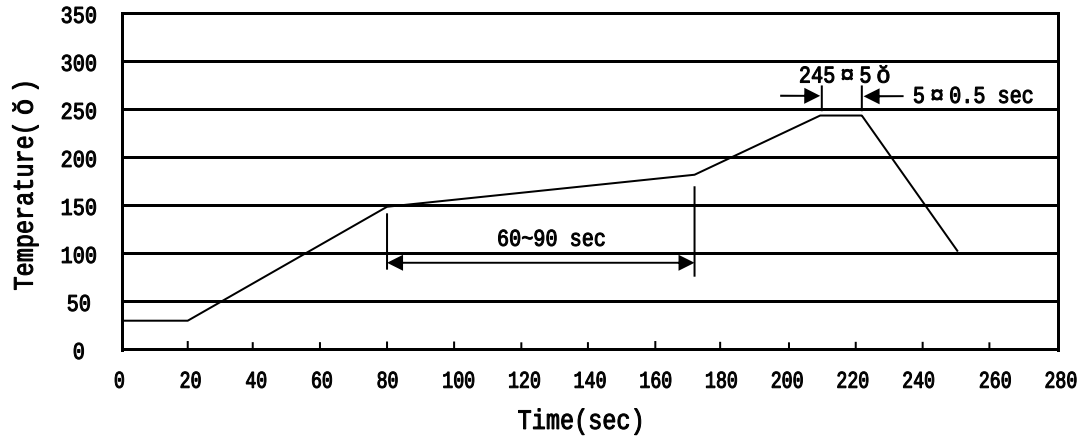


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Note:

BR:	Company Code
040N02:	Product Type Code
****:	Lot No. Code, code change with Lot No

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



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1 Ĺ♬□ŷ 150Ḱ180ł ı `H ڑ 60Ḱ90sec;

2 Š Ë□ŷ 245°5ł ı `H ڑ 'Y ㅅ ㎛ 5°0.5sec;

3 ì ˙ ㅓ ˛ ɔ ◈ ŷ ㎛ 2Ḱ10ł /sec.

Note:

1.Preheating:150~180ł, Time:60~90sec.

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

3. Cooling Speed: 2~10ł /sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

ɔ` ㅛ Ł / REEL

Package Type	Units					Dimension		(unit mm³)
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

˛ ㄱ ㅛ Ł / TUBE

Package Type	Units					Dimension		(unit mm³)
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices