

BRCS012N10SHTP

Rev.A Jul.-2025



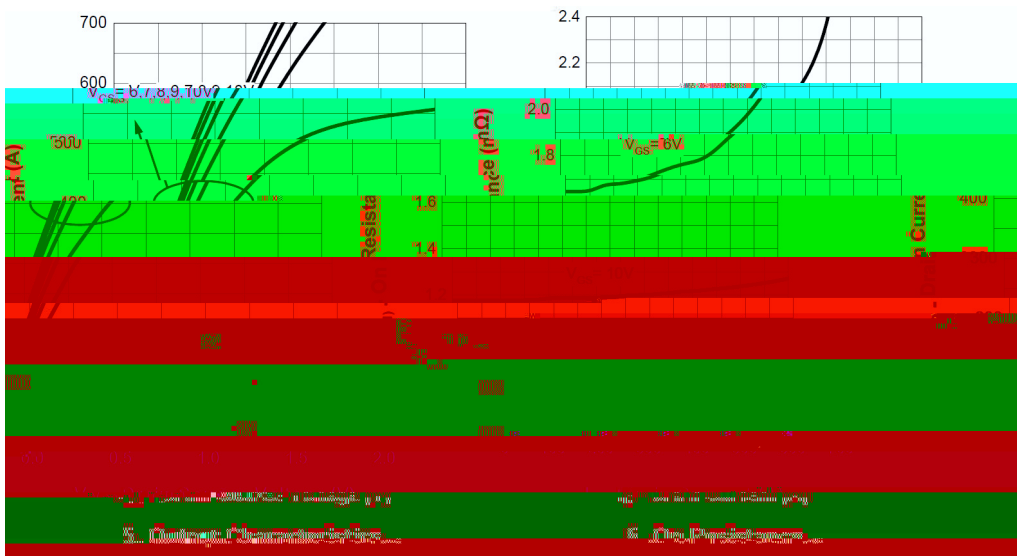
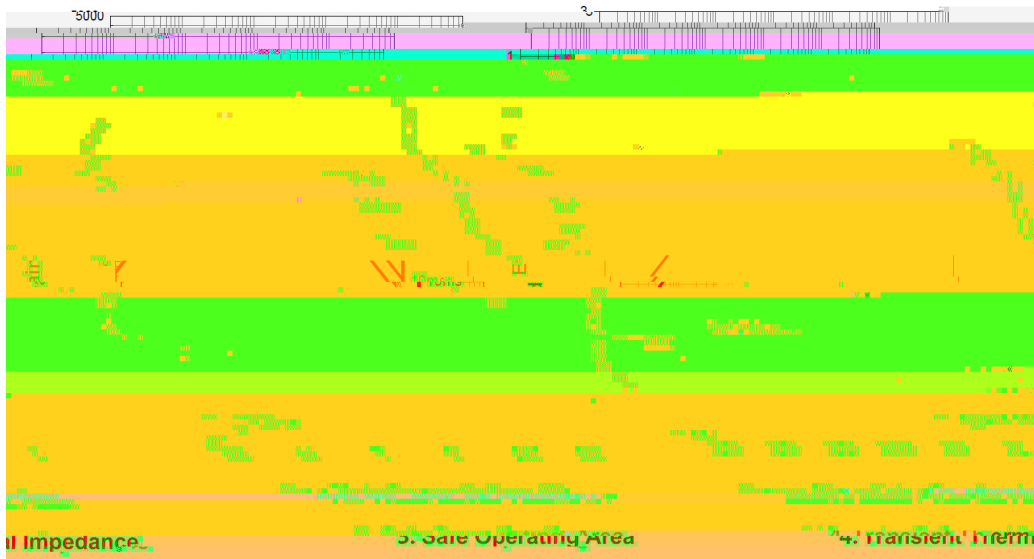
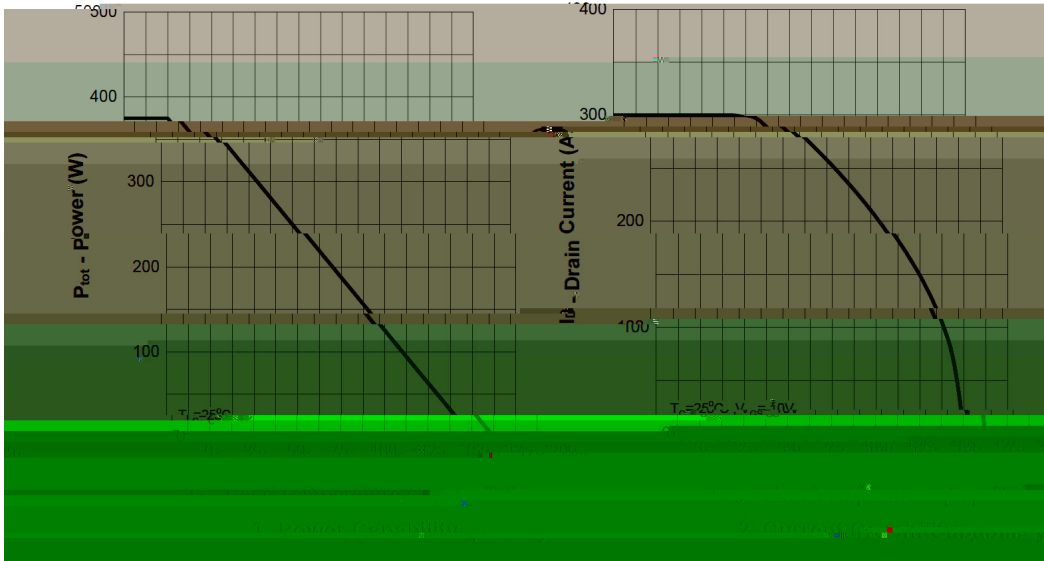
DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current(DC)	$I_D(T_C=25\text{ }^\circ\text{C})$	300	A
	$I_D(T_C=100\text{ }^\circ\text{C})$	258	A
Drain Current – Pulsed ^{*,**}	I_{DM}	1200	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	P_{tot}	375	W
Continuous-Source Current	I_S	300	A
Single Pulse Avalanche Energy($V_{DD}=50V, L=1.0mH$)	E_{AS}	2450	mJ
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 175	
Thermal resistance, junction – ambient ^{**}	R_{JA}	52	

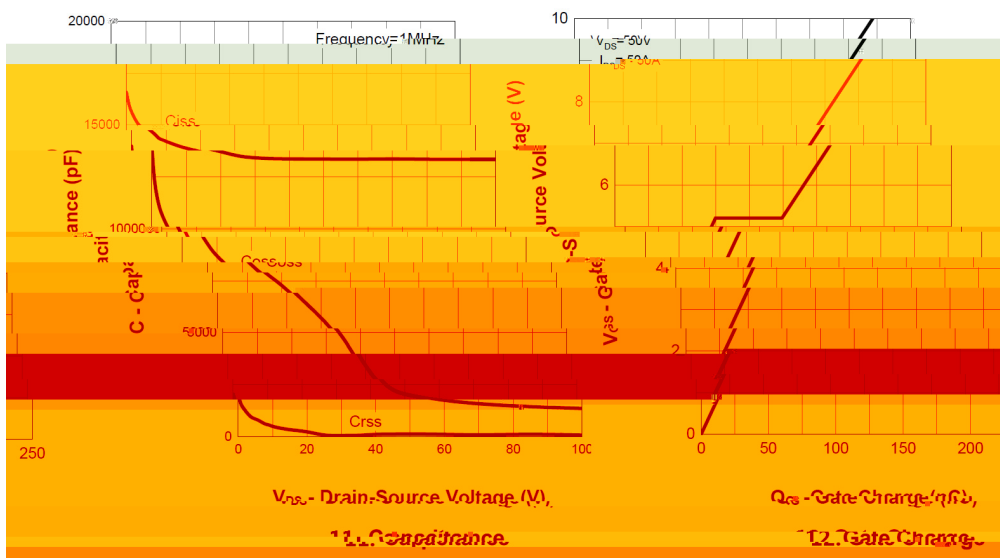
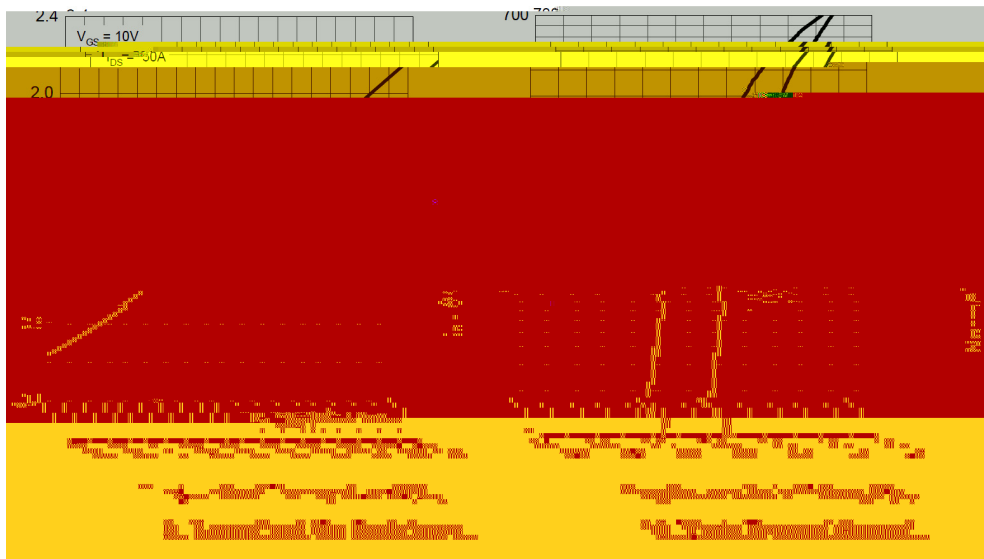
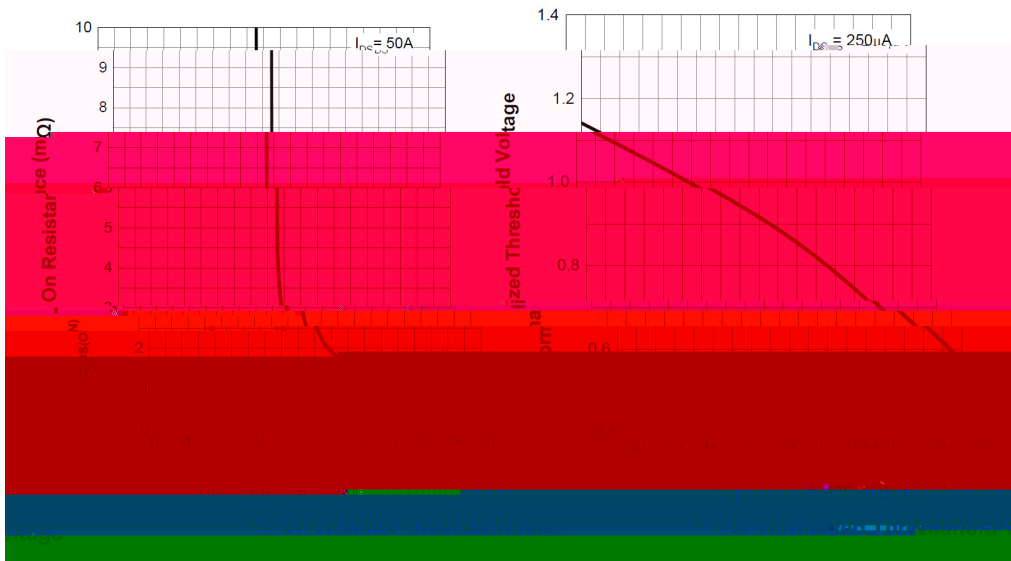
/ Electrical Characteristics(T_A=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =50V I _{DS} =50A		222		nC
Gate Source Charge	Q _{gs}			75		
Gate Drain Charge	Q _{gd}			49		
Turn-On Delay Time	t _{d(on)}	V _{GS} =10V V _{DS} =50V R _G =3.9 R _L =1 I _D =50A		41		ns
Turn-On Rise Time	t _r			116		
Turn-Off Delay Time	t _{d(off)}			137		
Turn-Off Fall Time	t _f			80		

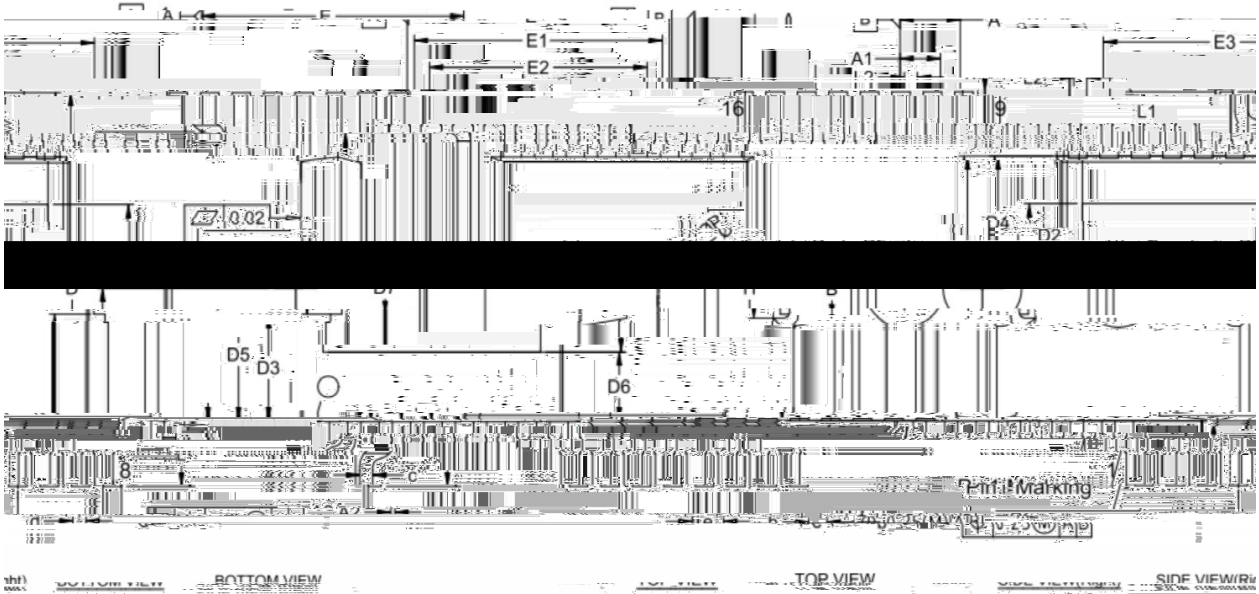
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions



Symbol	Dimensions In Millimeters			Symbol	Dimensions In Millimeters		
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.
A	2.250	2.300	2.350	E	9.700	10.000	10.100

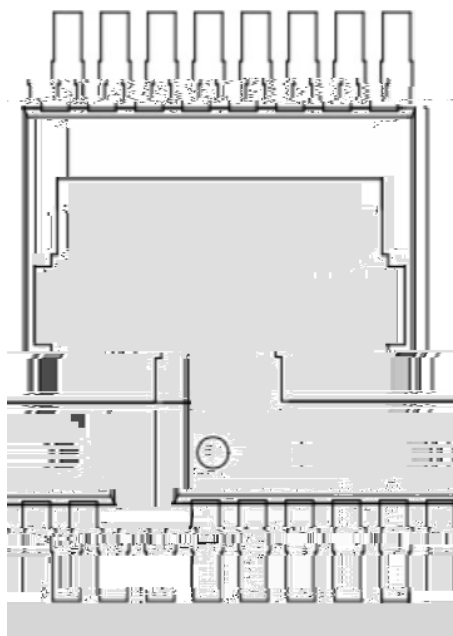
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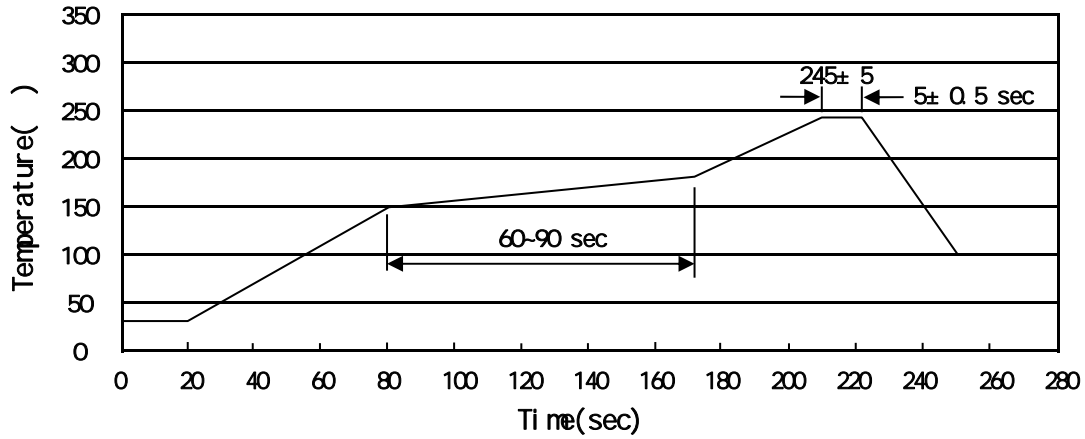


蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET



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



Note:

- | | | | | | |
|---|-------|-----|-------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ 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
TOLT-16L	2,000	1	2,000	TBD	TBD	TBD	TBD	TBD

/ Notices

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