

BRCS700P10DPQ

Rev.A Dec.-2023

/ Descriptions

TO-252 P MOS

P-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

$V_{DS}(V)=-100V$ $I_D=-22A$

$R_{DS(ON)}@-10V<70m\Omega$ (Typ.67mR)

$R_{DS(ON)}@-4.5V<85m\Omega$ (Typ.70mR)

AEC-Q101

Qualified to AEC-Q101 Standards for High Reliability,

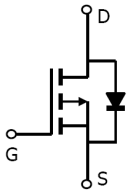
HF Product.

/ Applications

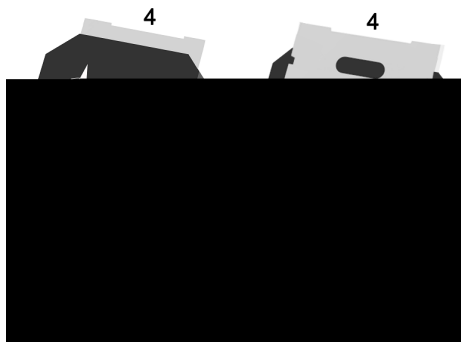
DC/DC

Power Management of Industrial DC/DC Converter, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

/ Marking

See Marking Instructions.

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蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-100	V
Drain Current - Continuous		$I_D(T_c=25^\circ\text{C})$	-22	A
Drain Current – Pulsed		I_{DM}	-66	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	75	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	176.4	mJ
Avalanche Current(L=0.5mH)		I_{AS}	-21	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient	Steady-State	$R_{\theta JA}$	62	/ W
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	1.67	

Parameter	Symbol	Test Conditions	Min
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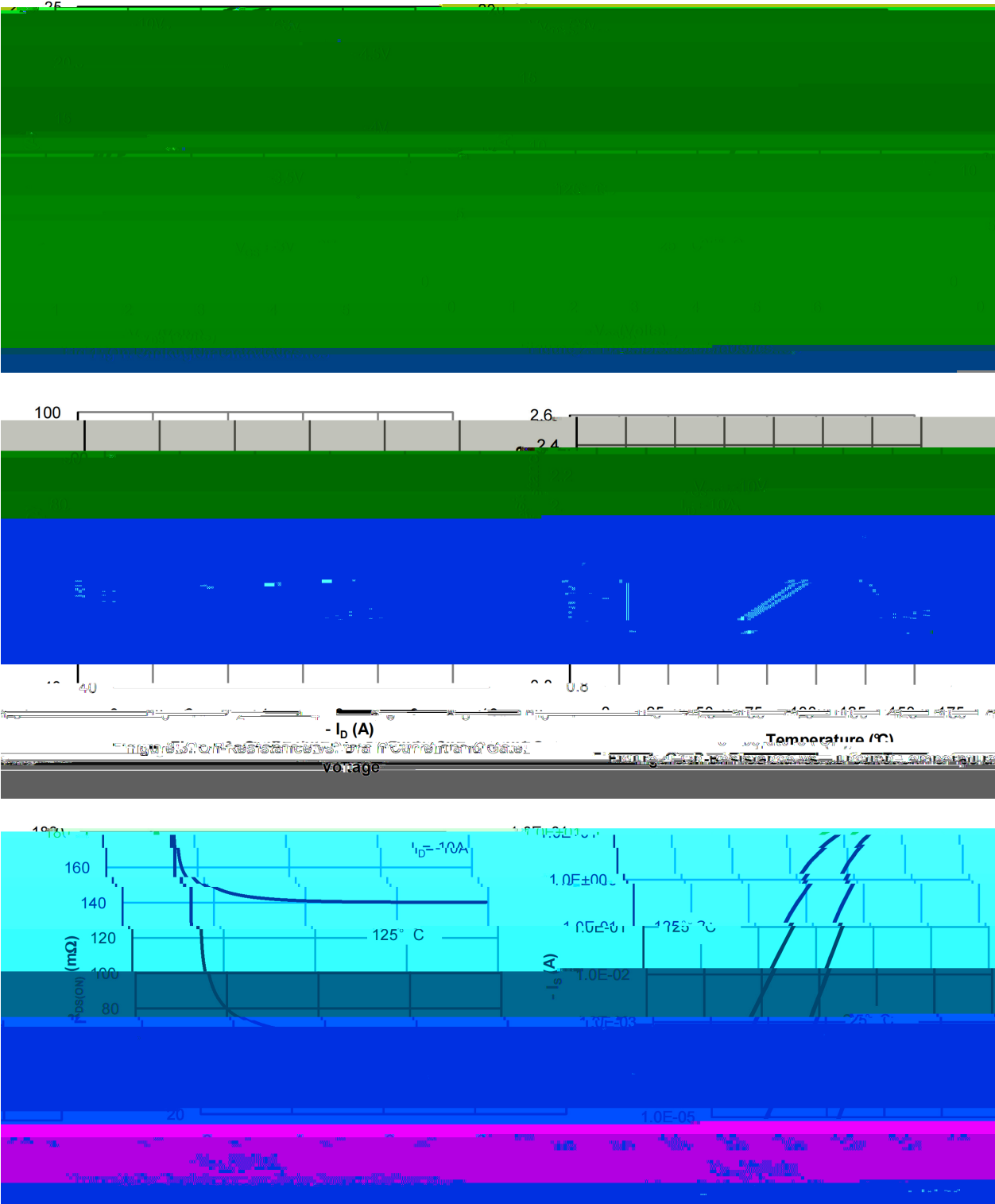
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DATA SHEET

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-50V$ $R_L=10\Omega$ $R_{GEN}=3\Omega$		6		ns
Turn-On Rise Time	t_r			2.4		
Turn-Off Delay Time	$t_{d(off)}$			19		
Turn-Off Fall Time	t_f			2.6		

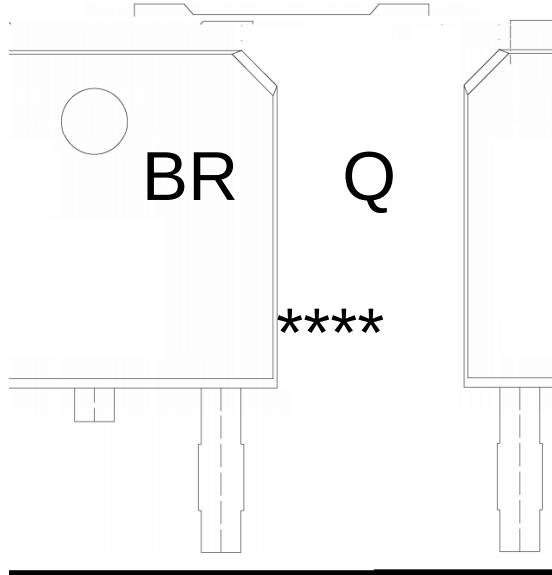
/ Electrical Characteristic Curve



BRCS700P10DPQ



/ Marking Instructions



BR

Q

700P10

Note:

BR: Company Code

Q: Automobile halogen-free product Code

700P10: Product Type Code

****: Lot No. Code, code change with Lot No

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

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 /sec.