

/ Descriptions

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

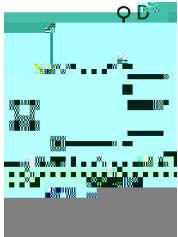
/ Features

Low $R_{DS(on)}$, low gate charge, low C_{rSS} , fast switching, Trench Technologies. HF Product.

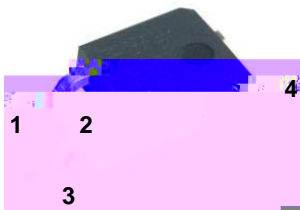
/ Applications

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

/ Equivalent Circuit



/ Pinning



PIN 1 G

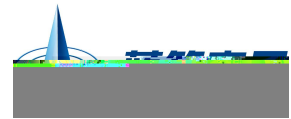
PIN 2 D

PIN 3 S

PIN 4 D

/ h_{FE} Classifications & Marking

? @ A B C fi See Marking Instructions.



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	10	V
Drain Current	$I_D(T_C=25^\circ C)$	-40	A
Drain Current - Pulsed	I_{DM}	-115	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AS}	24.5	A
Single Pulsed Avalanche Energy (L=0.5mH)	E_{AS}	210	mJ
Power Dissipation	$P_D(T_C=25^\circ C)$	52	W
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	$t \leq 10s$	20
		Steady-State	50
Thermal Resistance-Junction to Case	$R_{\theta JC}$	2.4	$^\circ C/W$

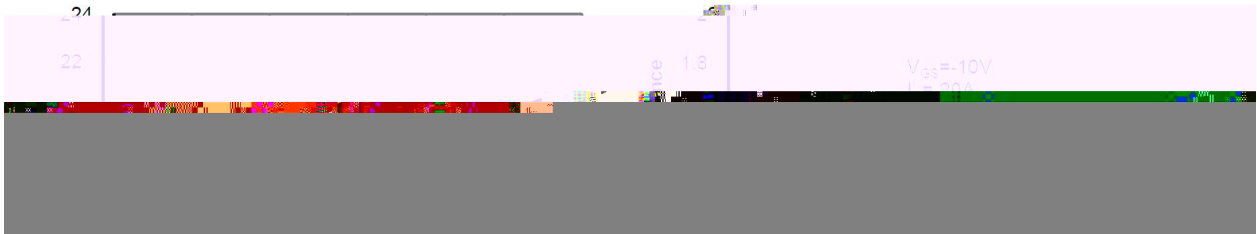
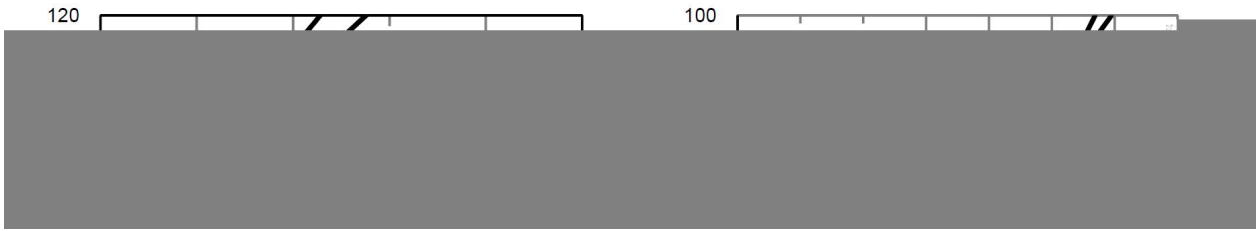
28970 0.04700



/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=1\ \Omega$ $R_{GEN}=3$		9.4		ns
Turn-On Rise Time	t_r			20		
Turn-Off Delay Time	$t_{d(off)}$			55		
Turn-Off Fall Time	t_f			30		

/ Electrical Characteristic Curve



BRCS150P04DP

Rev.A Mar.-2022

DATA SHEET

http://

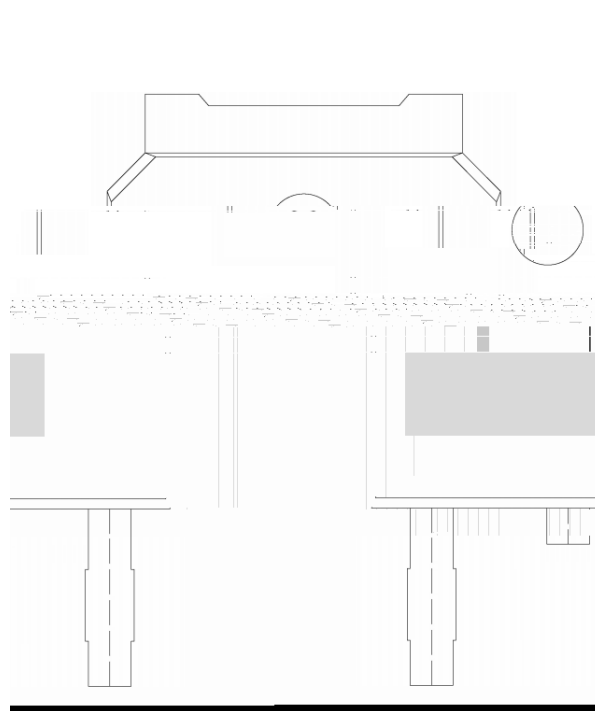
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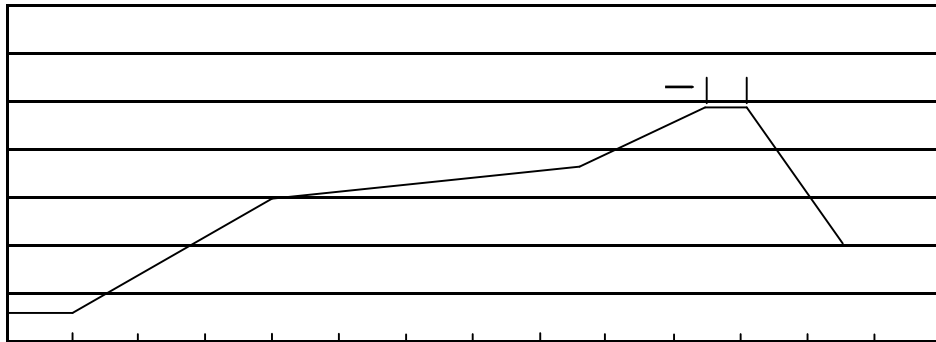
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/ Marking Instructions





() / 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 0.5sec; 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 封装形式	Units 包装数量				Dimension 包装尺寸 (unit: mm ³)		
					盒	箱	
					"		

/ TUBE

Package Type 封装形式	Units 包装数量				Dimension 包装尺寸 (unit: mm ³)		
					套管	盒	箱

/ Notices