





/ Descriptions

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

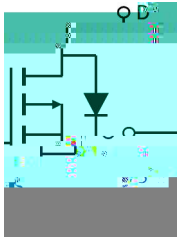
/ Features

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

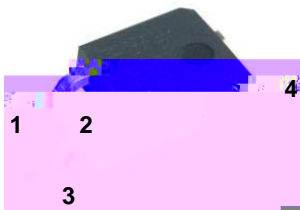
/ Applications

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.



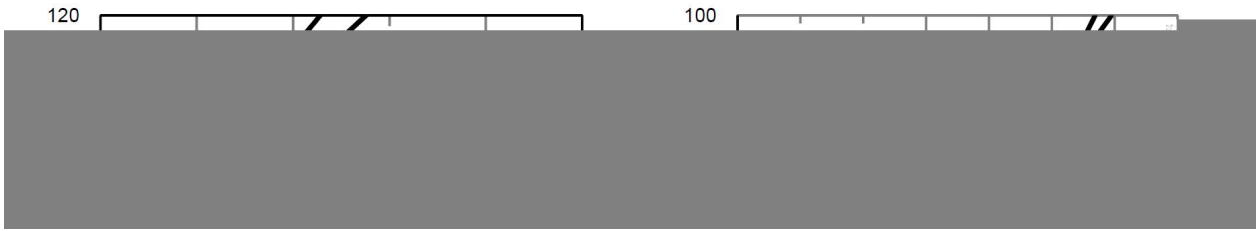
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	10	V
Drain Current	$I_D(T_C=25^\circ C)$	-40	A
Drain Current - Pulsed	I_{DM}	-115	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AS}	24.5	A
Single Pulsed Avalanche Energy (L=0.5mH)	E_{AS}	210	mJ
Power Dissipation	$P_D(T_C=25^\circ C)$	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

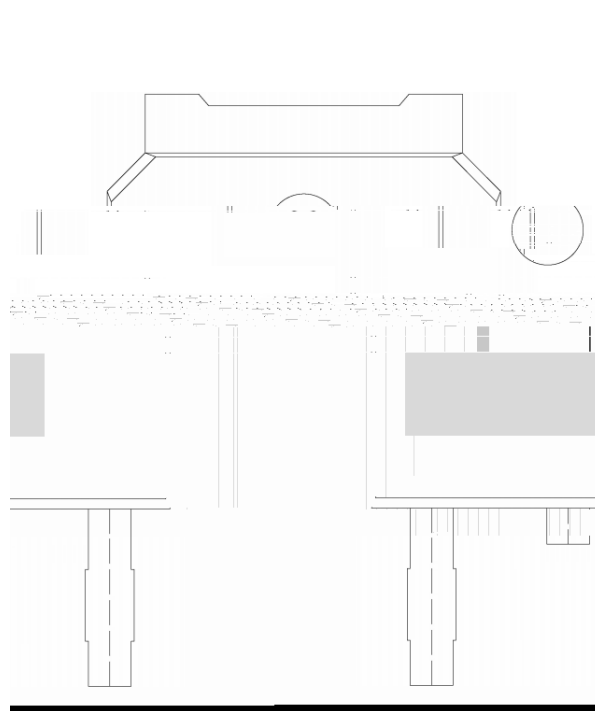
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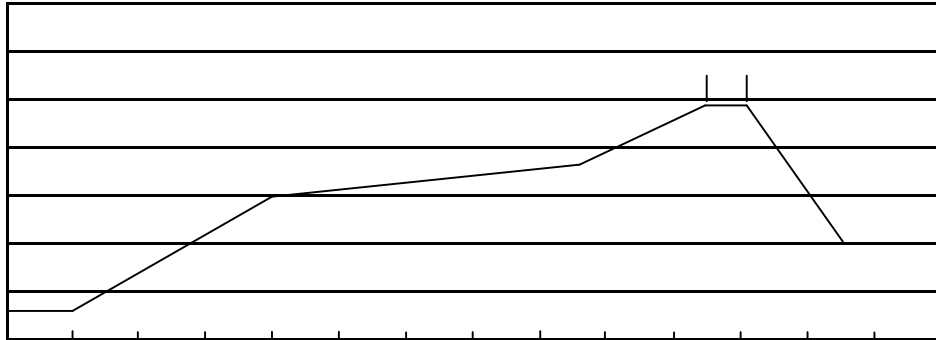
DATA SHEET

/ 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