/ Descriptions

TO-252 P ! " # $ % & '

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

/ Features

$R_{DS(on)}$ ( ) * + , -) C_{rss} ( ) . / 0 1 2) ! 3 4 5) 6 7 8 9 '

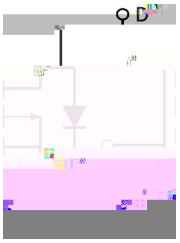
Low $R_{DS(on)}$,low gate charge, low C_{rss}, fast switching, Trench Technologies. HF Product.

/ Applications

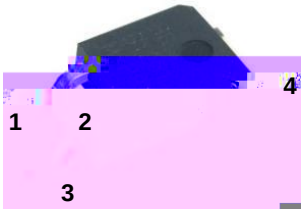
: ; - < + = > ? @ A + = B DC/DC C D B E F G 8 9 H + I J $ C D '

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



PIN1 ? G PIN 2 ? D PIN 3 ? S PIN 4 ? D

/ h_{FE} Classifications & Marking

K L M N O ' See Marking Instructions.

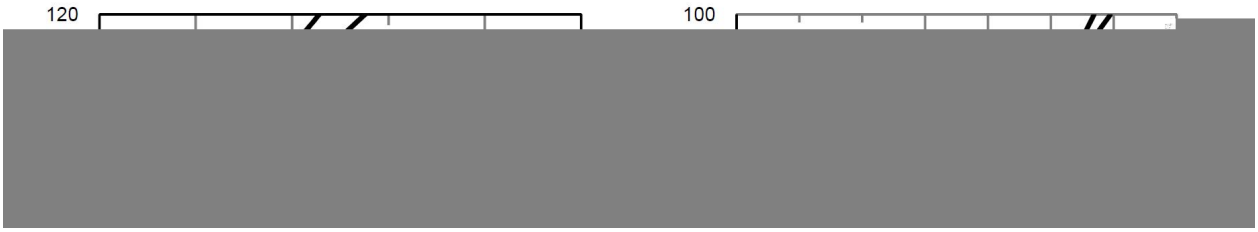
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	-40	V
Drain Current		I_D(Tc=25℃)	-40	A
Drain Current - Pulsed		I_{DM}	-115	A
Gate-Source Voltage		V_{GS}	±20	V
Avalanche Current		I_{AS}	24.5	A
Single Pulsed Avalanche Energy（L=0.5mH）		E_{AS}	210	mJ
Power Dissipation		P_D(Tc=25℃)	52	W
Storage 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	$R_{\theta JC}$	2.4	

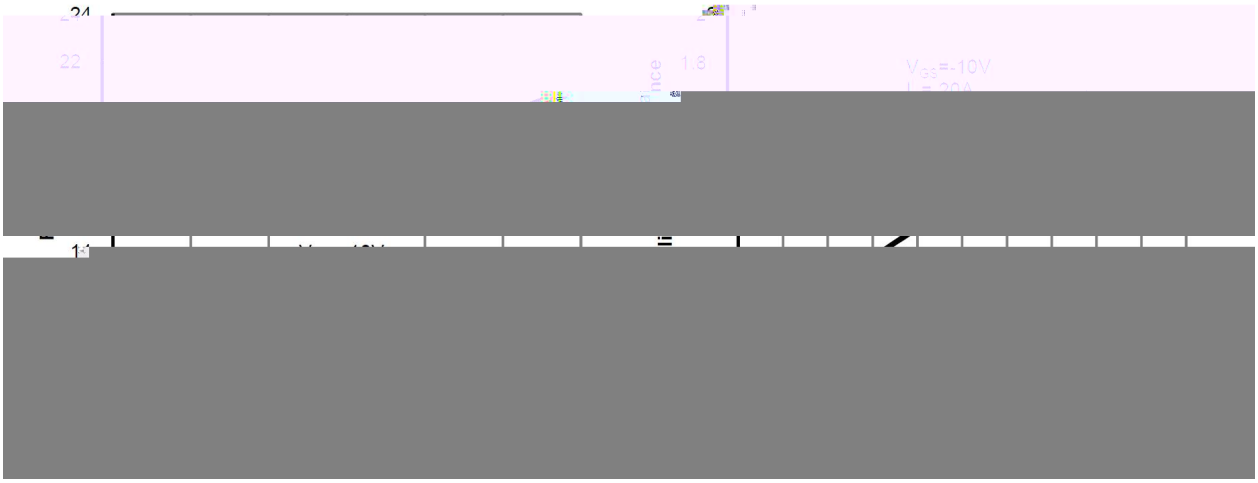
28970 0.04700

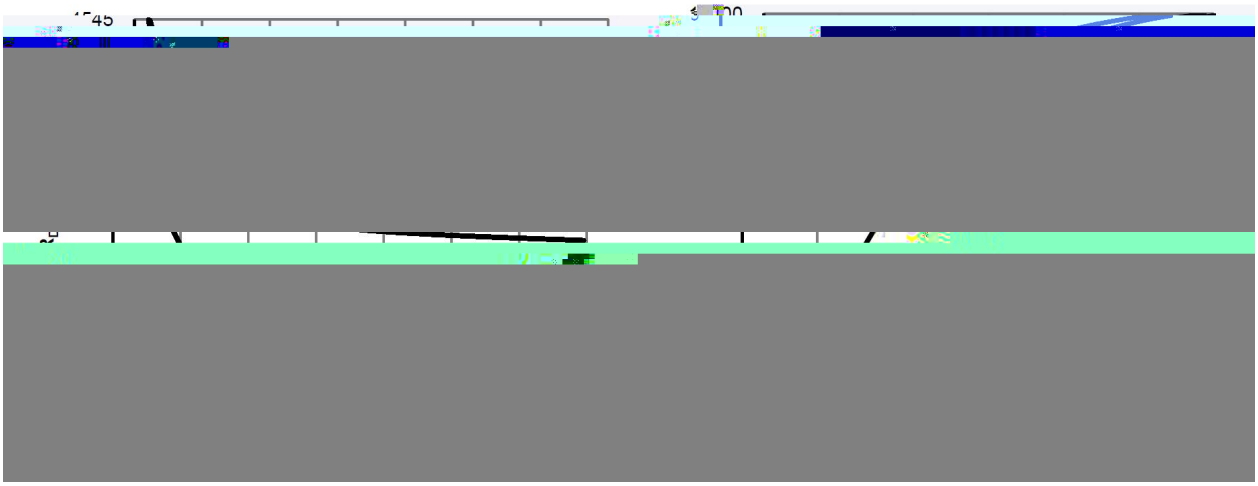
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=-10V V_{DS}=-20V R_L=1 Ω R_{GEN}=3Ω		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





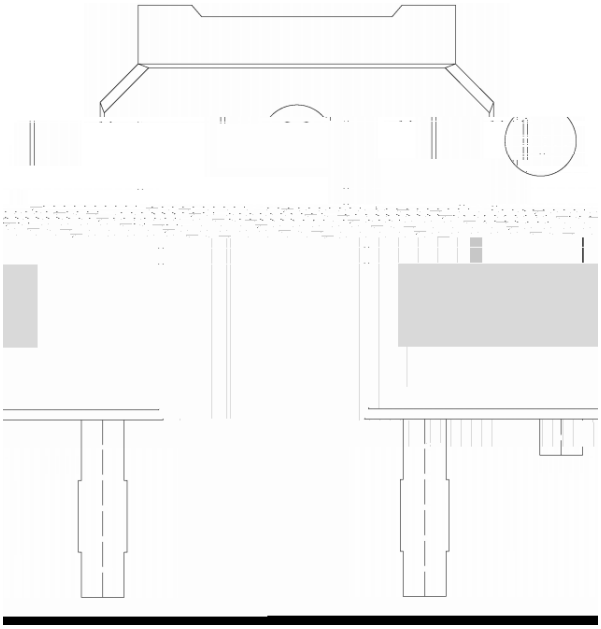


BRCS150P04DP

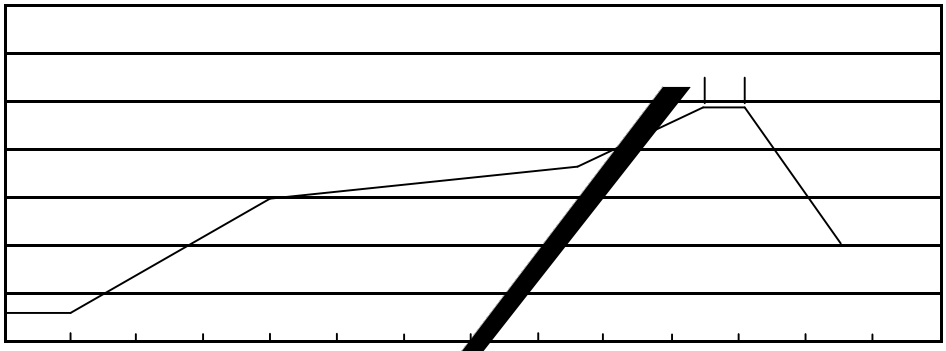
Rev.A Mar.-2022

DATA SHEET

/ 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