

# BRCS20N06DP

Rev.C Jun.-2023

## 5 Ø / Descriptions

TO-252 N-Channel MOSFET in a TO-252 Plastic Package.

## / " / Features

$V_{DS} = 60V$  ;  $I_D = 20A$

$R_{DS(on)}@10V$  37m (Type.25m )

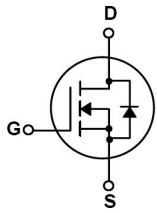
$R_{DS(on)}@4.5V$  42m (Type.30m )

HF Product.

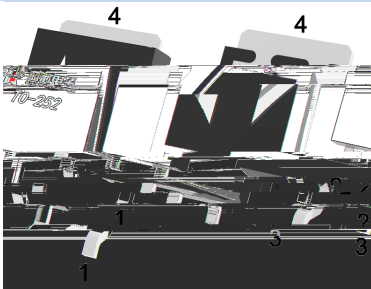
## — ÷ / Applications

Boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.

## ^ W ] Ô• / Equivalent Circuit



## Û- æ / Pinning



PIN1 yG

PIN 2yD

PIN 3yS

PIN 4yD

## , M V / Marking

See Marking Instructions.

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DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	20	A
Drain Current - Pulsed	$I_{DM}$	47	A
Gate-Source Voltage	$V_G$	$\pm 20$	V
Avalanche energy(L=0.5mH)	$E_{AS}$	58	mJ
Avalanche Current(L=0.5mH)	$I_{AS}$	13	A
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	33.6	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	

Thermal Resist 7.93.ermal Resi33.6 W «ç%%o(Aó IX g #À!~m UXtE Qw"äFHô3BVP !, @Û-âV%o

Parameter Z

Symbol

**BRCS20N06DP**

Electrical Characteristic Curve

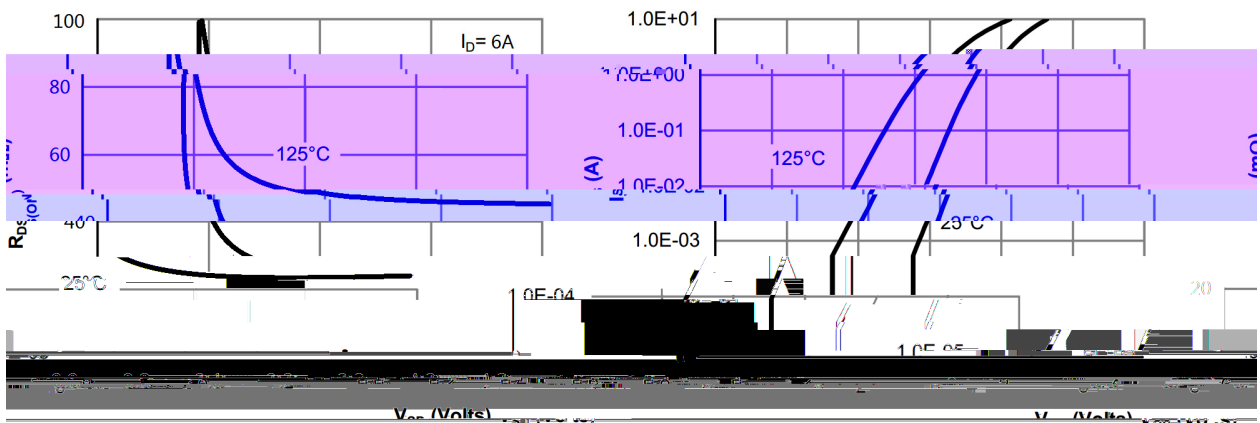
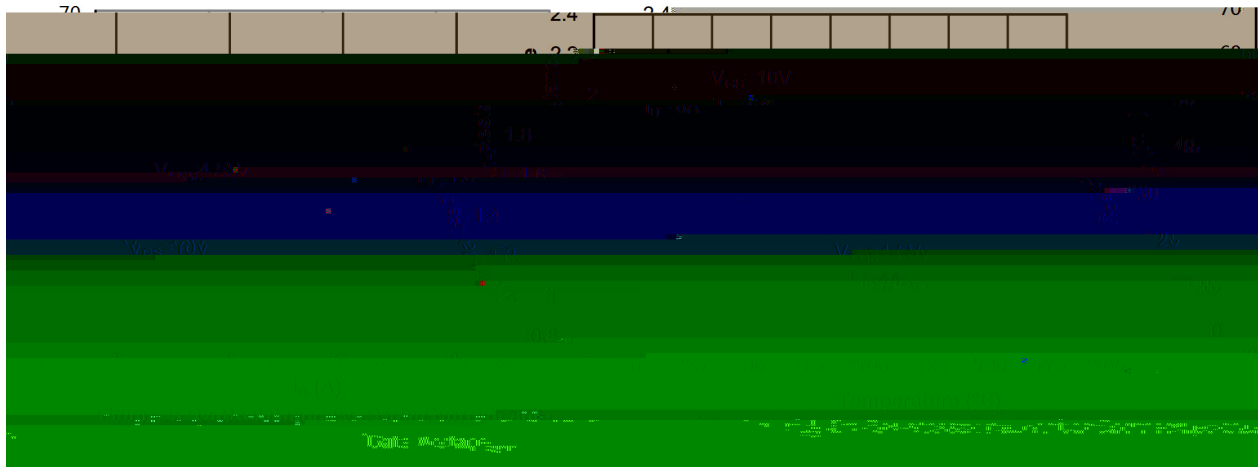
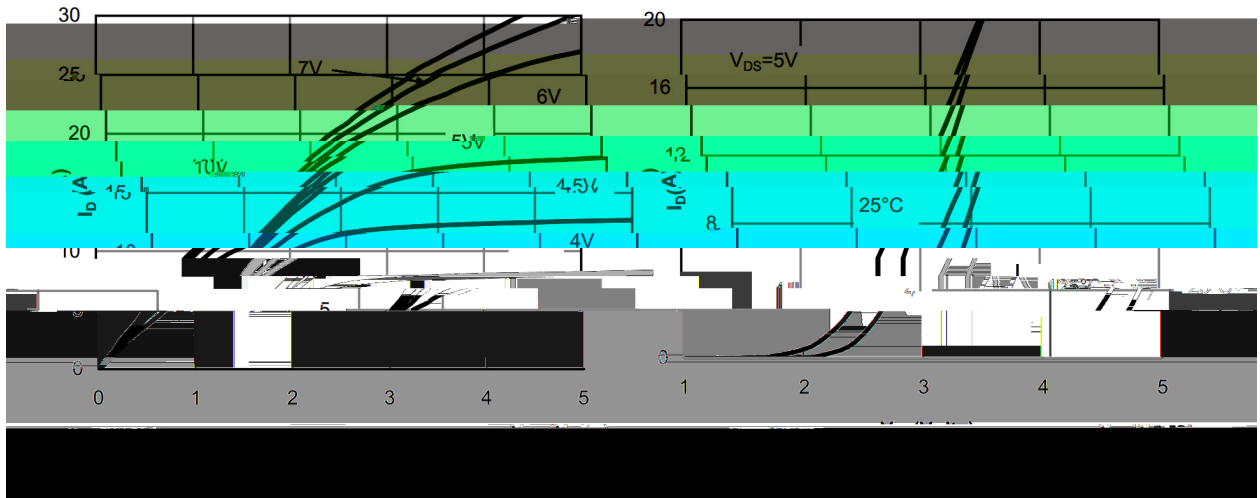


Figure 4: Drain Current vs. Drain-Source Voltage      Figure 5: On-Resistance vs. Drain Current      Figure 6: Body-Diode Characteristics

Electrical Characteristic Curve

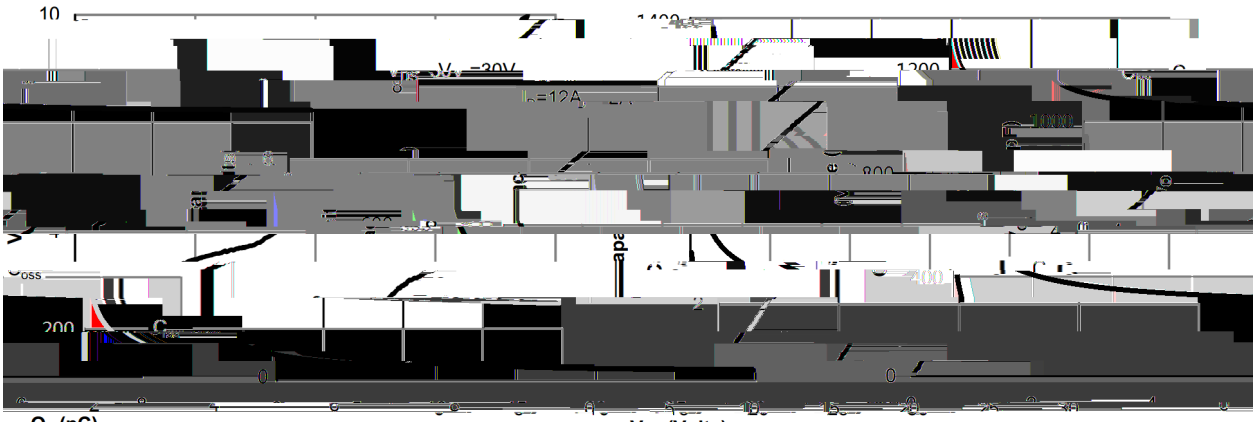


Figure 7: Gate-Charge Characteristics

Figure 8: Capacitance Characteristics

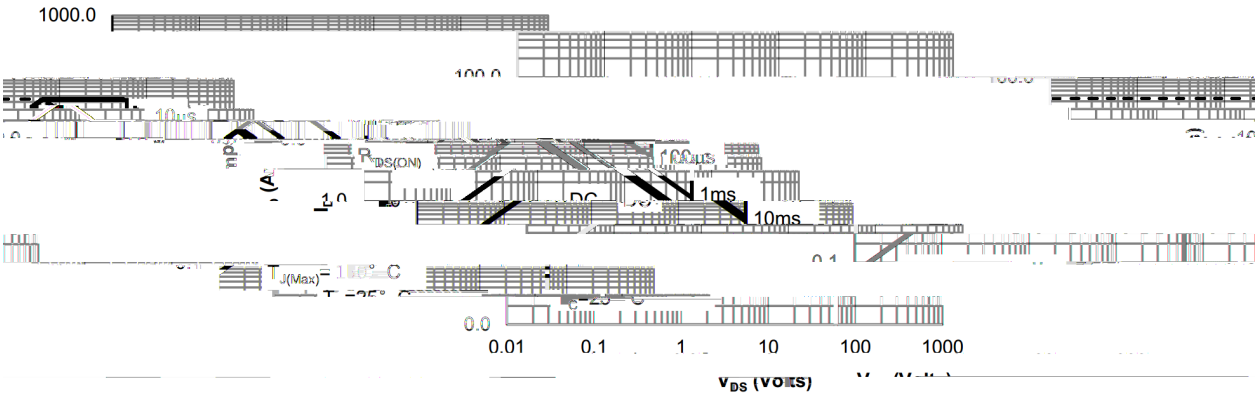
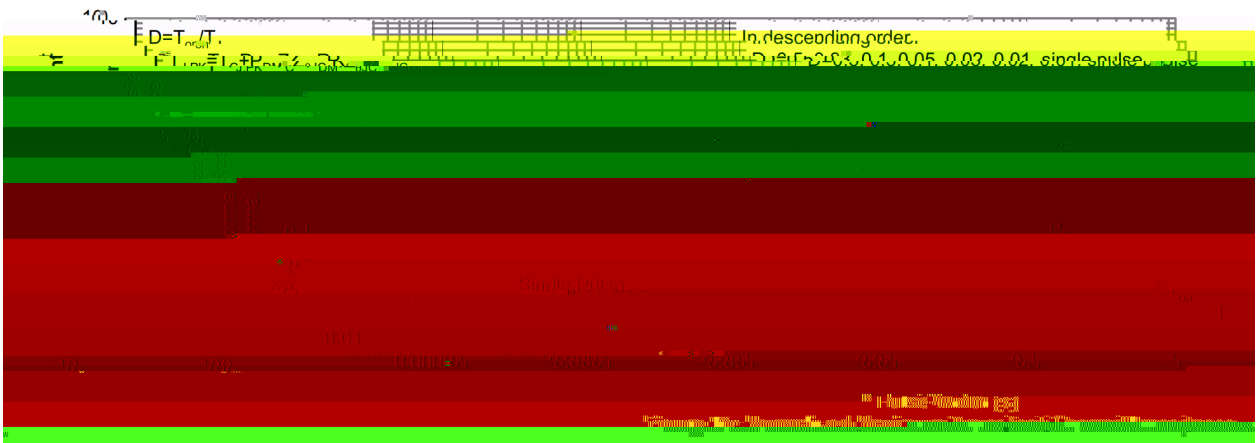
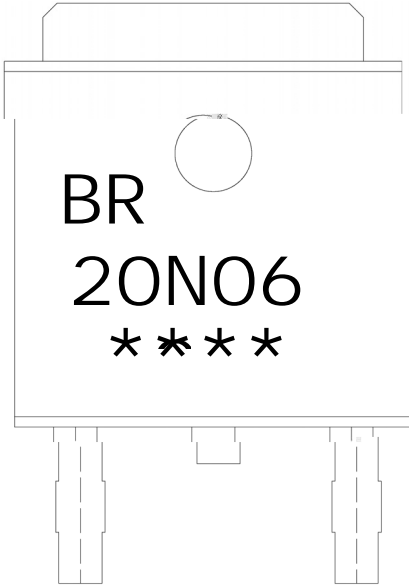


Figure 9: Maximum Forward Biased Safe Area



**BRCS20N06DP**

**, M y / Marking Instructions**



“ ¢ y  
BR y , [ W A  
20N06y " Z W A  
y ¨D Z W A k ¨D Z J  
Note:  
BR: Company Code  
20N06: Product Type  
\*\*\*\*: Lot No. Code, code change with Lot No

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DATA SHEET

WD t    ϕ (x /) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXC


" ϕ y

- 1o ~ %o    150%180 - k    60%90sec;
- 2o Q    245r5 - k    4 Ò    5 r0.5sec;
- 3o D N ò i ÒO ,    2 %10 - /sec.

Note:

- 1.Preheating:150~180 Time:60~90sec.
- 2.Peak Temp.:2455 - , Duration:5r0.5sec.
- 3.anceJ /TT6 to Solder.6(14012 H)-2me:73 1 est Condi7 1 s