

BRC60N02DP

Rev.A Apr.-2019

/ Descriptions

N TO-252

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

/ Features

Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching. Halogen-free Product.

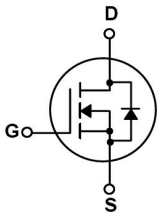
Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching. Halogen-free Product.

/ Applications

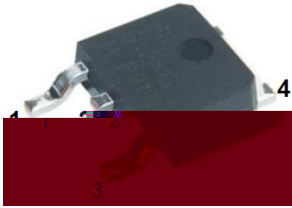
DC/DC

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

See Marking Instructions.

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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	20	V
Drain Current	$I_D(T_C=25^\circ C)$	60	A
	$I_D(T_C=100^\circ C)$	50	A
Drain Current - Pulsed	I_{DM}	210	A
Gate-Source Voltage	V_{GS}	± 12	V
Avalanche Current	I_{AS}	18.3	A
Avalanche energy L=0.5mH	E_{AS}	268	mJ
Power Dissipation	$P_D(T_C=25^\circ C)$	100	W
	$P_D(T_C=100^\circ C)$	50	W
Junction and Storage Temperature Range	T_j T_{stg}	-55 150	
Maximum Junction-to-Ambient Steady-State	R_{JA}	62	

Parameter	Symbol
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/ Electrical Characteristic Curve

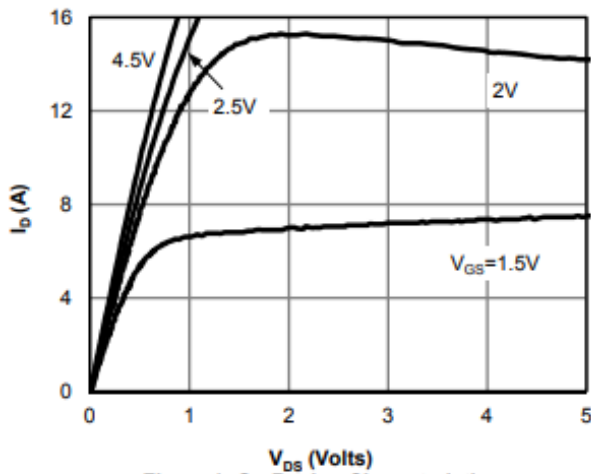


Figure 1: On-Region Characteristics.

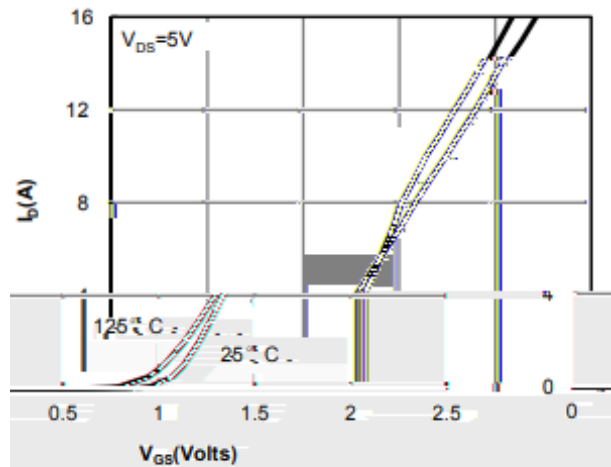


Figure 2: Transfer Characteristics.

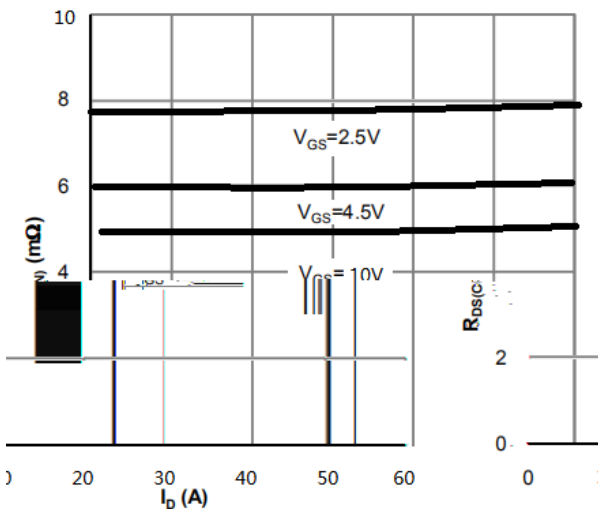


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

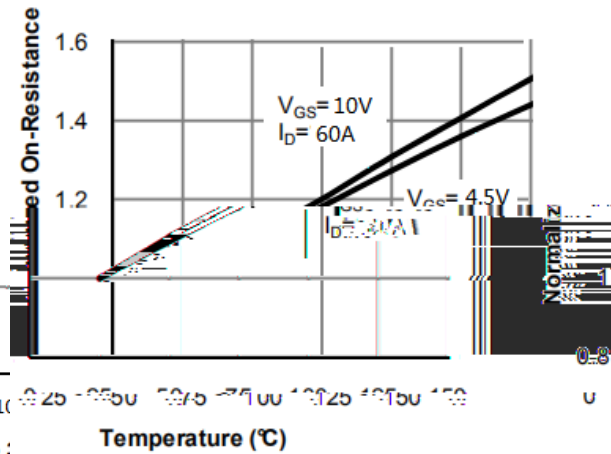


Figure 4: On-Resistance vs. Junction Temperature

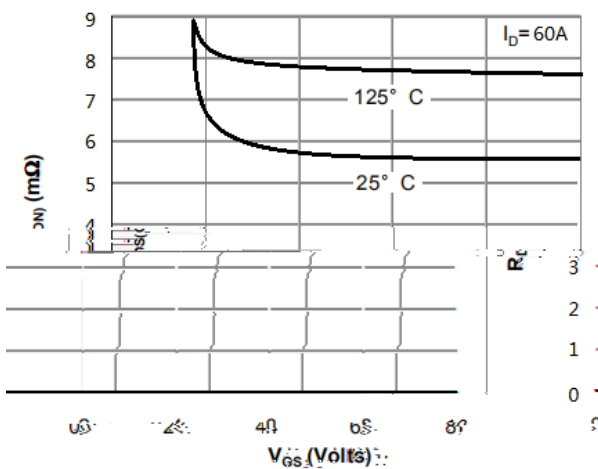


Figure 5: On-Resistance vs. Gate-Source Voltage

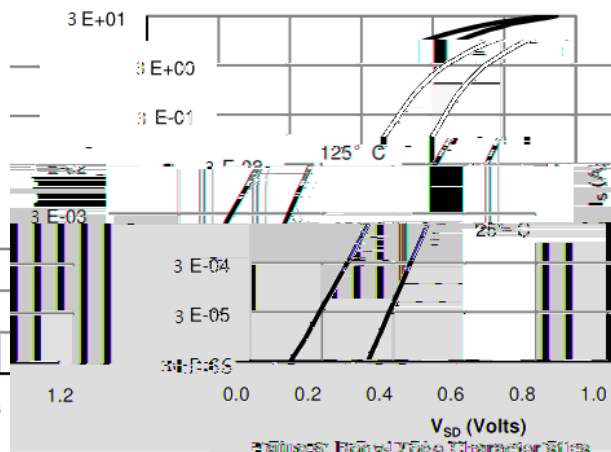


Figure 6: On-Resistance vs. Drain-Source Voltage

/ Electrical Characteristic Curve

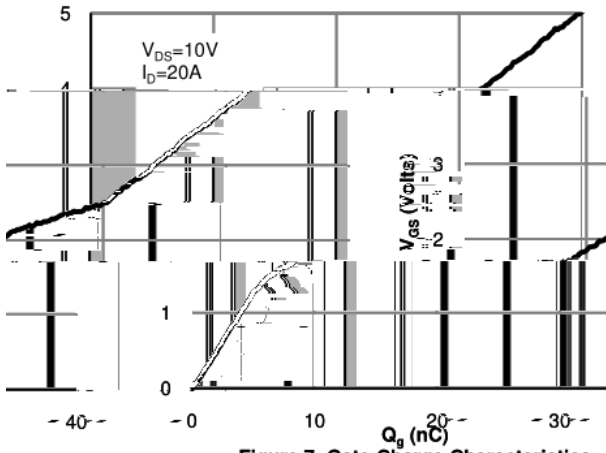


Figure 7: Gate-Charge Characteristics

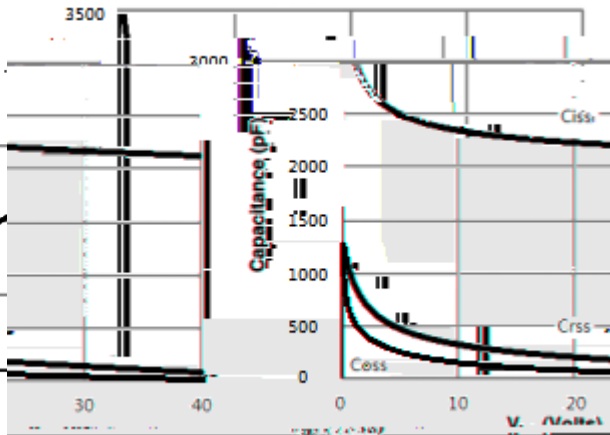


Figure 8: Capacitance Characteristics

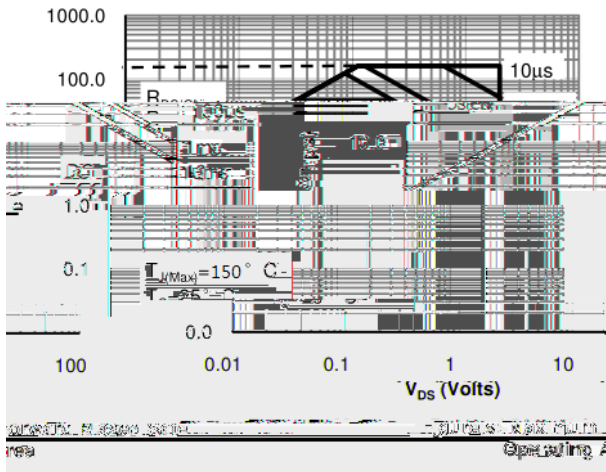


Figure 9: Dynamic Thermal Resistance

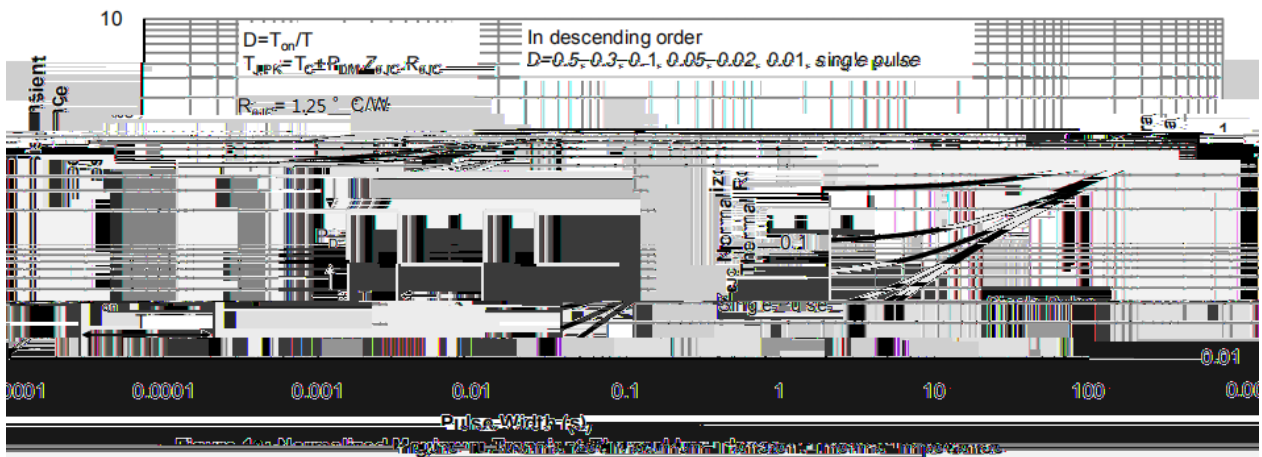
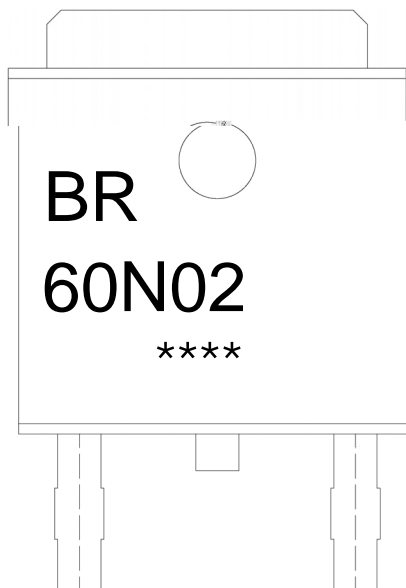


Figure 10: Thermal Impedance

/ Marking Instructions



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60N02

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Note:

BR: Company Code

60N02: Product Type Code.

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

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