

/ Descriptions

TO-220 N MOS N-CHANNEL MOSFET in a TO-220 Plastic Package.

/ Features

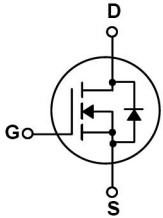
Low gate charge, low crss, fast switching.

/ Applications

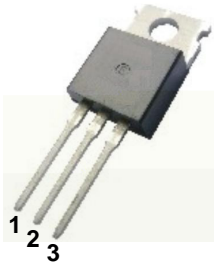
DC/DC

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

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S

/ h_{FE} Classifications & Marking

See Marking Instructions.

BR50N03
Rev.B Jul.-2018

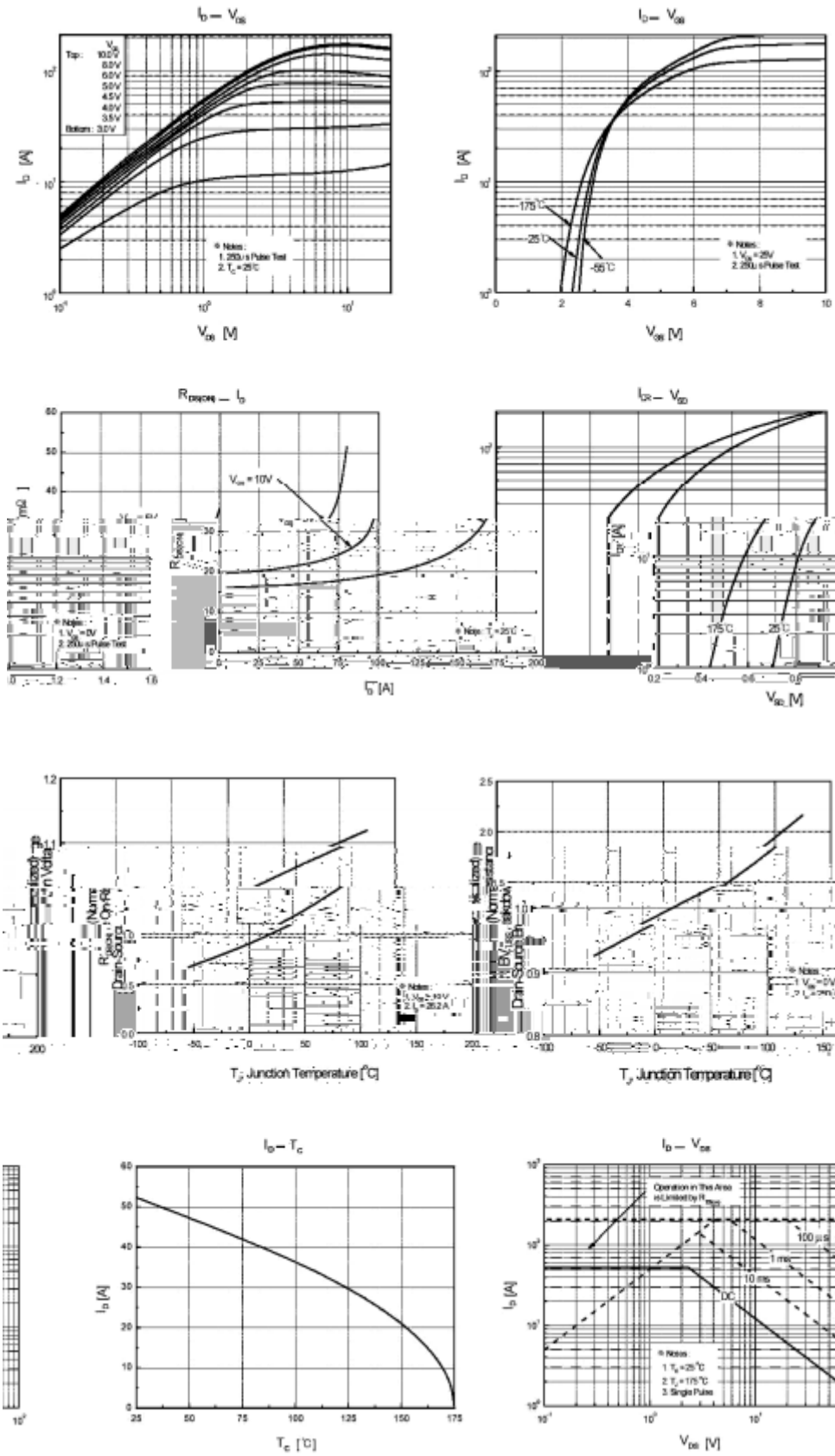


Parameter	Symbol	Rating
Drain-Source Voltage	V_{DSS}	30
Drain Current	$I_D(T_C=25^\circ C)$	50
Pulsed Drain Current	I_{DM}	200
Gate-Source Voltage	V_{GSS}	± 20
Avalanche Current	I_{AS}	9.9
Single Pulsed Avalanche Energy	E_{AS}	147
Total Power Dissipation	$P_D(T_C=25^\circ C)$	30

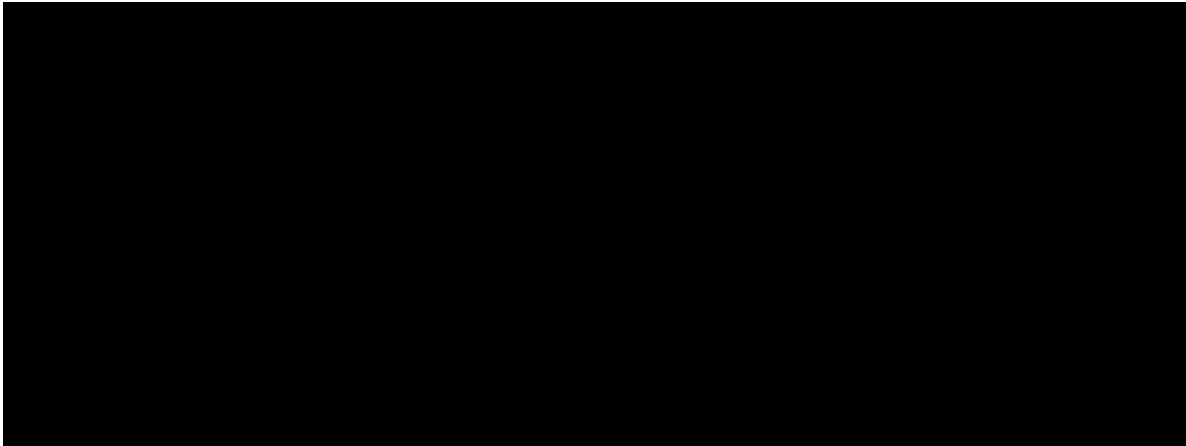
Parameter	Symbol	Test Conditions	Min	Ty
Zero Gate Voltage	I_{D0}	$V_{DS} = 10V, V_{GS} = 0V$		
Energy	E_{AS}	$V_{DS} = 10V, I_D = 10A$		

/ Electrical Characteristic Curve

1

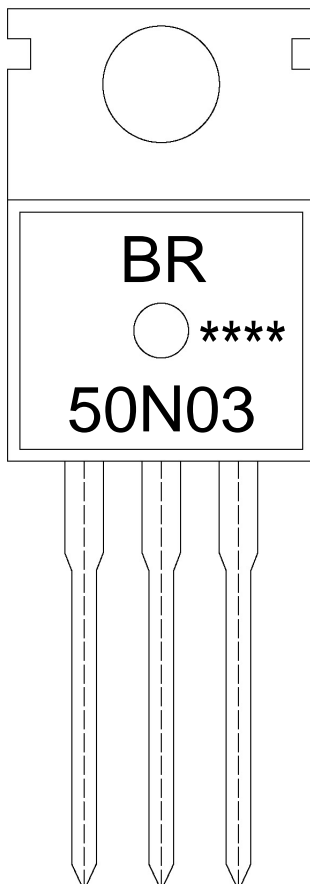


/ Package Dimensions



Symbol	Dimensions In: Millimeters		Symbol	Dimensions In: Millimeters	
	Min	Max		Min	Max
Δ	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
L	15.7	16.1	B1	9.0	9.4
b	12.6	13.6	C1	2.2	2.6
b1	9.6	10.6	a1	0.7	0.9
a	1.32	1.37	a2	1.32	1.37
a2	1.25	1.45			

/ Marking Instructions



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50N03

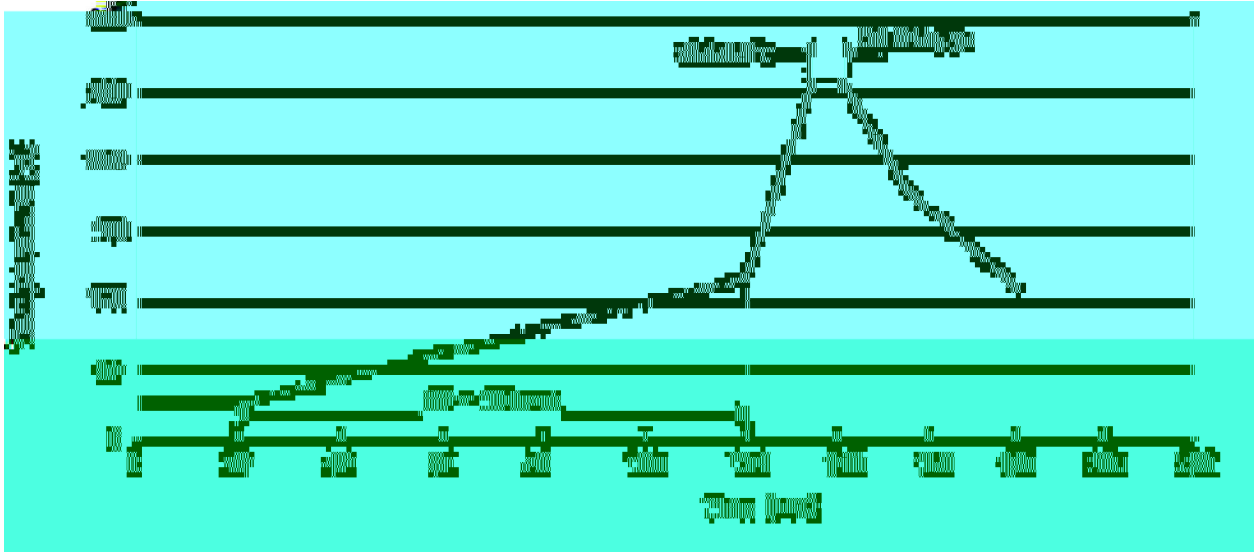
Note:

BR: Company Code

50N03: Product Type.

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

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | |
|---|--------|-----------|---|
| 1 | 25 150 | 60 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | 2 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices