

/ Descriptions

TO-252 N MOS

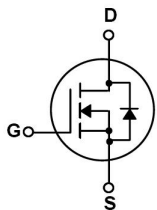
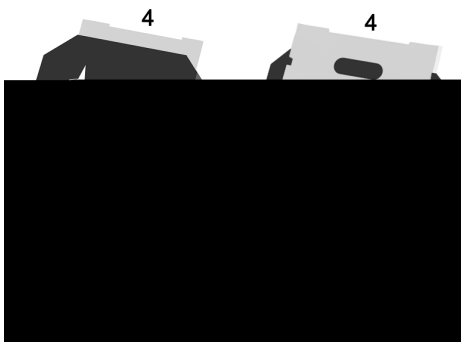
N-Channel Enhancement Mode Field Effect Transistor in a TO-252 Plastic Package.

/ Features $V_{DS} (V) = 30V$ $I_D = 122 A$ ($V_{GS} = \pm 20V$) $R_{DS(ON)} @ 10V \leq 3.5m\Omega$ (Typ. 3.4m Ω) $R_{DS(ON)} @ 4.5V \leq 6.5m\Omega$ (Typ. 5.0m Ω)

HF Product.

/ Applications

Load Switch Applications, Battery Power Management.



PIN1 G PIN 2 4 D PIN 3 S

/ Marking

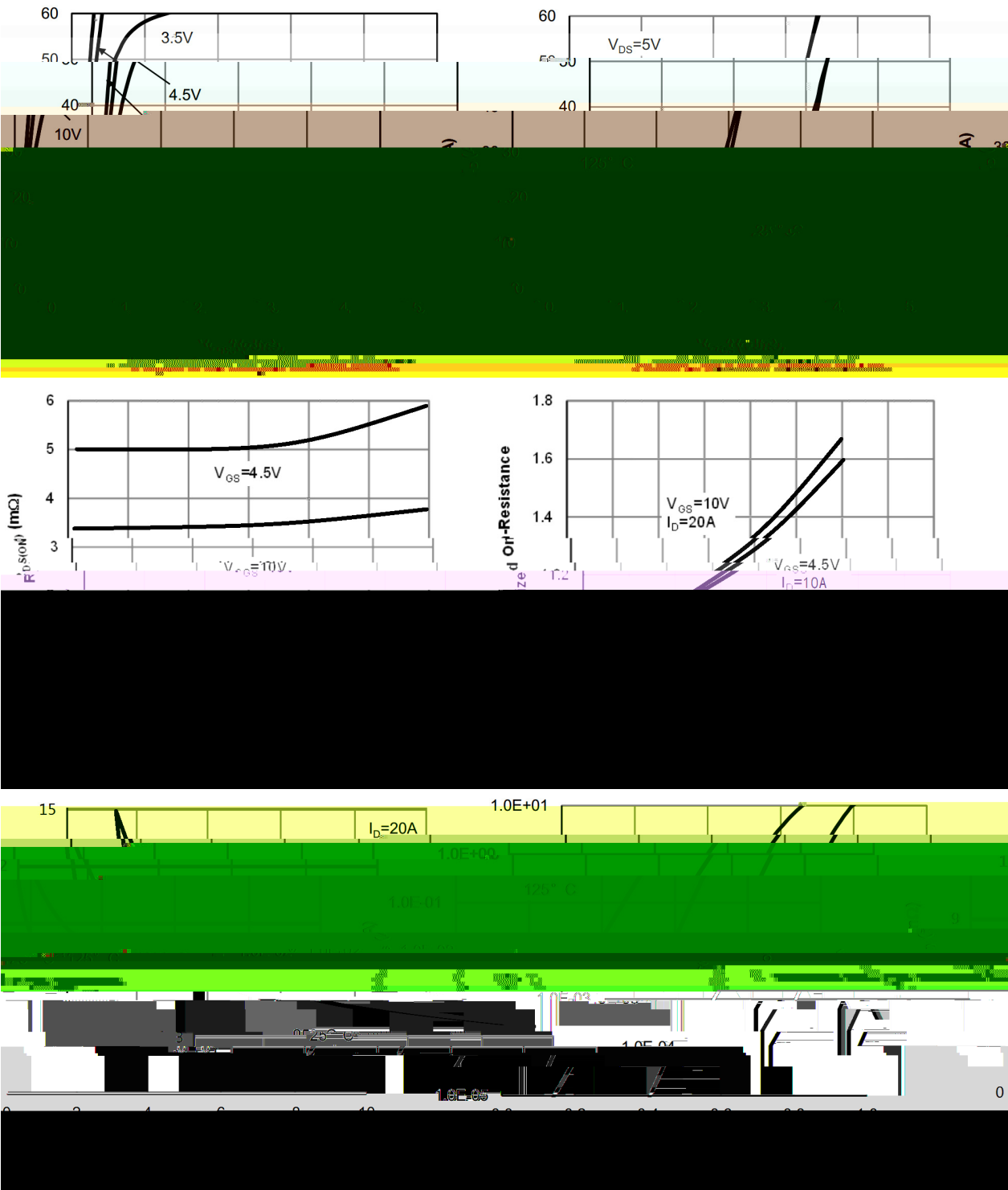
See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	30	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	122	A
		$I_D(T_c=100^\circ\text{C})$	86	A
Drain Current - Pulsed		I_{DM}	260	A
Gate-Source Voltage		V_{GS}	± 20	V
Single Pulsed Avalanche Energy		E_{AS}	281	mJ
Avalanche Current		I_{AS}	26.5	A
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	88	W
Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	$t \leq 10$	R_{JA}	22	/W
Junction-to-Ambient	Steady-State		50	
Junction-to-Case	Steady-State	R_{JC}	1.42	

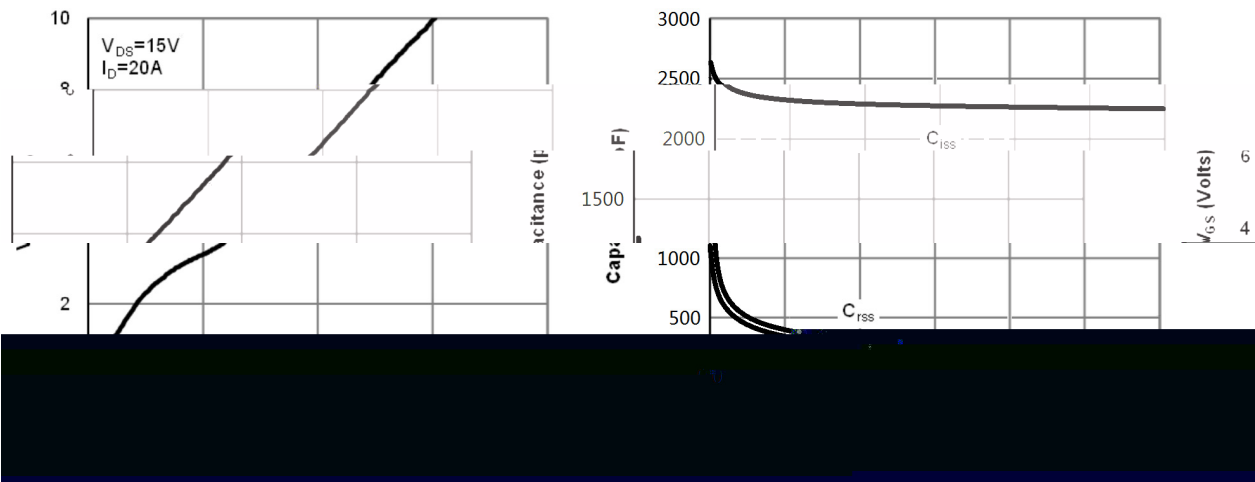
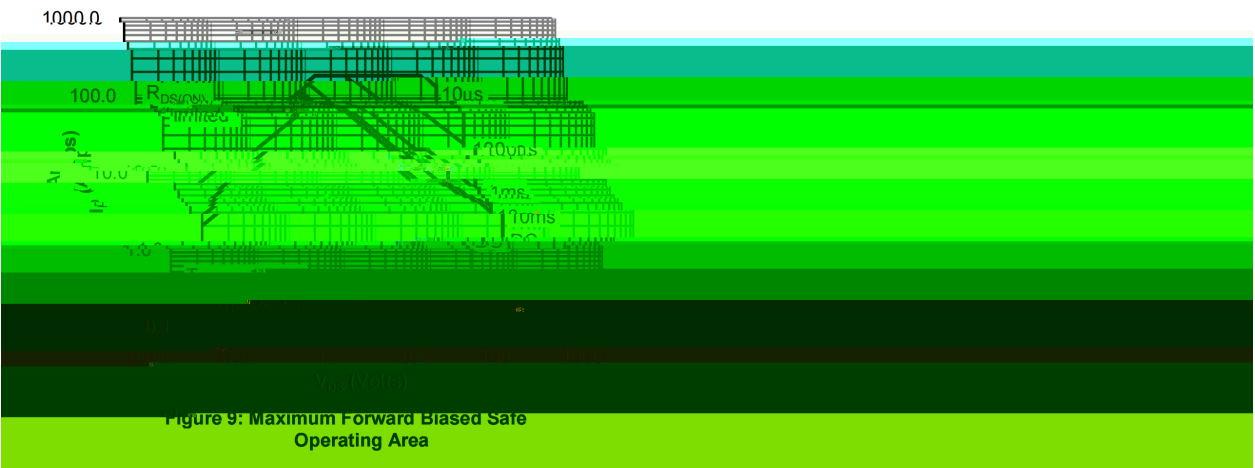
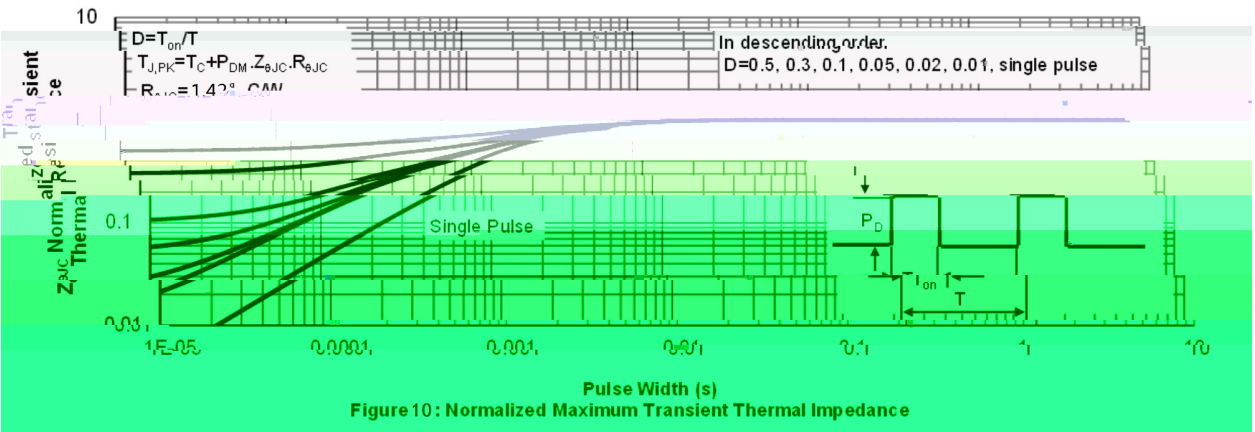
/ Electrical Characteristics(Tc=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=15V$ $I_D=20A$		32		nC
Total Gate Charge	$Q_{g(4.5V)}$			15		
Gate Source Charge	Q_{gs}			5.2		
Gate Drain Charge	Q_{gd}			6.5		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=15V$ $R_L=0.75\Omega$ $R_{GEN}=3\Omega$		8.5		ns
Turn-On Rise Time	t_r			4.2		
Turn-Off Delay Time	$t_{d(off)}$			30		
Turn-Off Fall Time	t_f			5.7		

/ Electrical Characteristic Curve

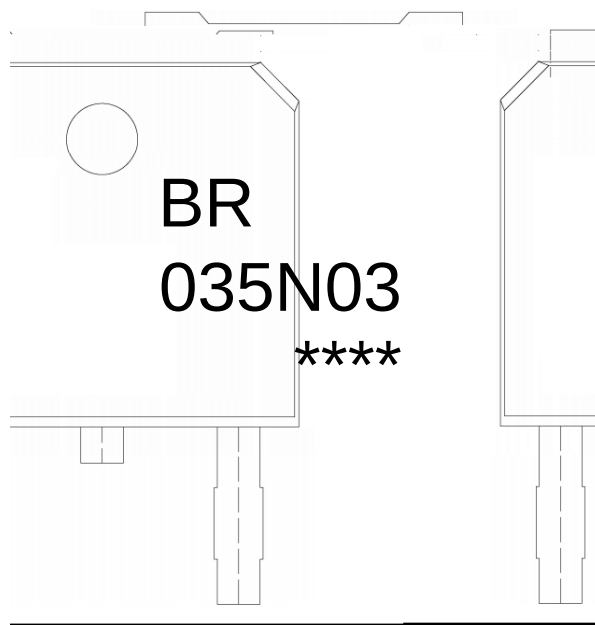


/ Electrical Characteristic Curve



BRCS035N03DP

/ Marking Instructions



BR

035N03

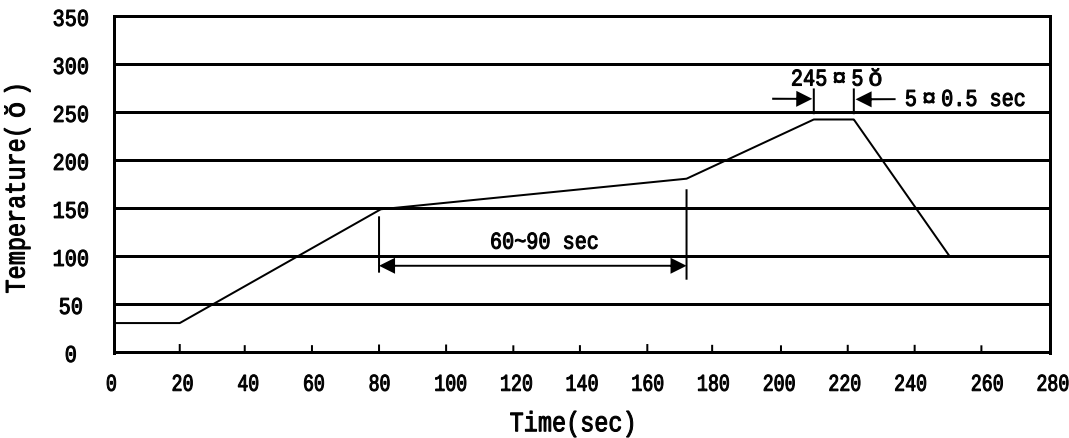
Note:

BR: Company Code

035N03: Product Type Code

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

() / 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	Units					Dimension (unit mm ³)		
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices

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