

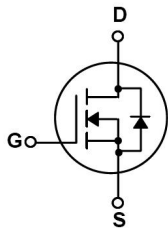
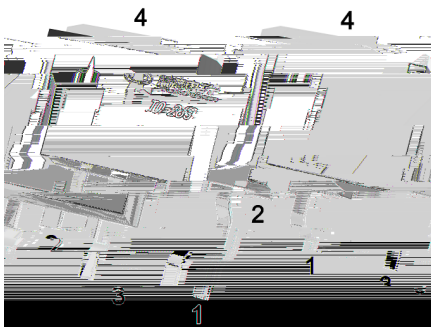
BRCS035N10SHBDQ

Rev.A Dec.-2023

TO-263 N

N-CHANNEL MOSFET in a TO-263 Plastic Package.

High frequency switching and synchronous rectification,BMS,Motor, Meet the stringent requirements of automotive applications.



PIN1 G PIN 2 4 D PIN 3 S

See Marking Instructions.

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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	180	A
Pulsed Drain Current	I_{DM}	385	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy(L=0.5mH)	E_{AS}	563	mJ
Avalanche Current	I_{AS}	37.5	A
Total Power Dissipation	$P_D(T_c=25^\circ\text{C})$	237	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	17.7	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=50V$ $R_L=2.5\Omega$ $R_{GEN}=3\Omega$		25		ns
Turn-On Rise Time	t_r			17		
Turn-Off Delay Time	$t_{d(of)}$					

Electrical Characteristic Curve

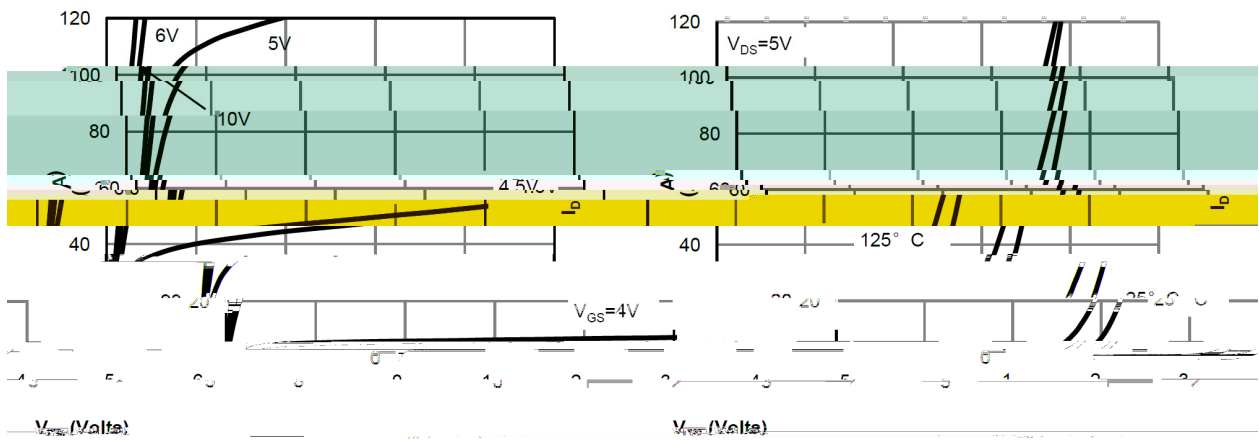


Figure 1: On-Region Characteristics

Figure 2: Transfer Characteristics

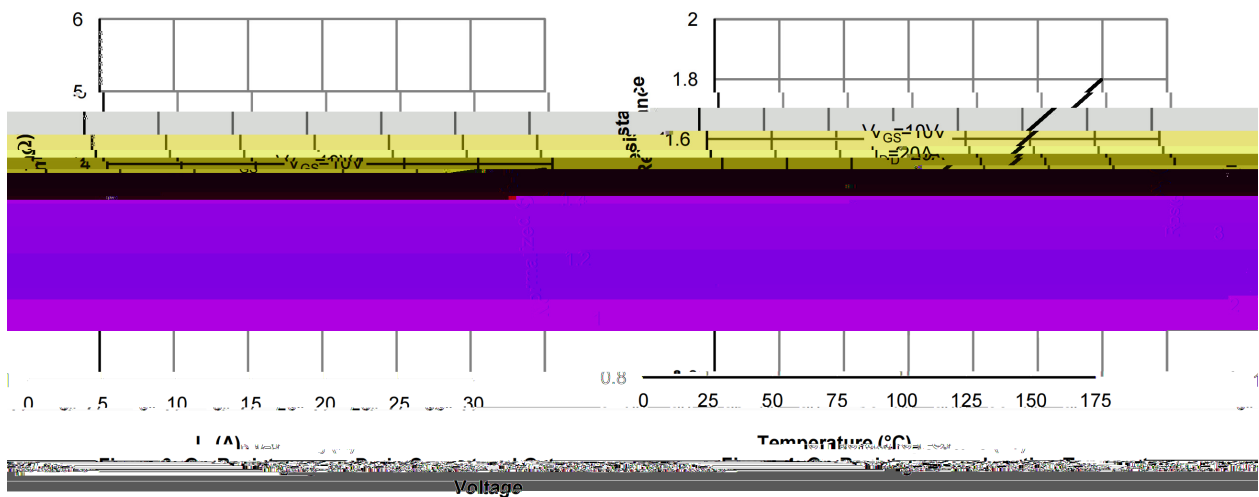
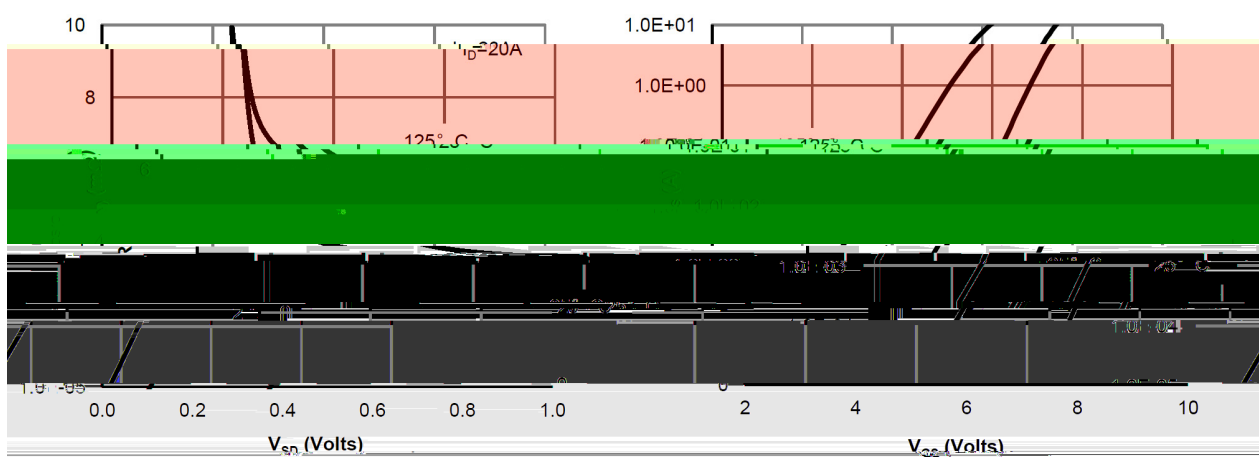


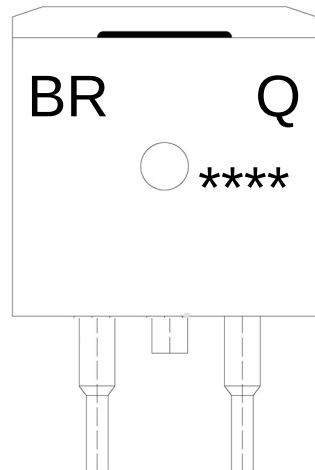
Figure 4: Body Diode Characteristics

Figure 5: Body Diode Characteristics

BRCS035N10SHBDQ



/ Marking Instructions



Q

Note:

BR: Company Code

Q: Automobile halogen-free product Code

035N10SH: Product Type Code

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

() / **Temperature Profile for IR Reflow Soldering(Pb-Free)**

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 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**

605 5 P