/ Descriptions

PDFN5×6 Ł N ڜ ٦

N-Channel MOSFET in a PDFN5×6 Plastic Package .

/ Features

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Low $R_{DS(ON)}$ to minimize conductive loss;low Gate Charge for fast switching;Low Thermal resistance; Qualified to AEC-Q101 Standards for High Reliability; HF Product.

/ Applications

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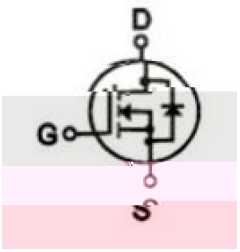
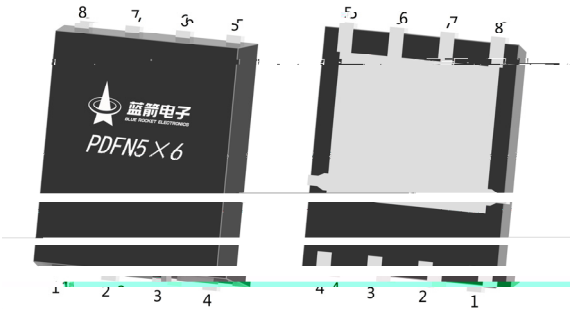
Battery Management, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

/ Marking

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See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Drain Current - Continuous	I_D	170	A
Drain Current – Pulsed	I_{DM}	340	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(T_c=25$)	65	W
Single Pulse Avalanche Energy(L=0.5mH)	E_{AS}	358	mJ
Avalanche Current(L=0.5mH)	I_{AS}	32	A
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - case	$R_{\theta JC}$	1.9	/ W
Thermal resistance, junction - ambient	$R_{\theta JA}$ / W		

/ Electrical Characteristic Curve

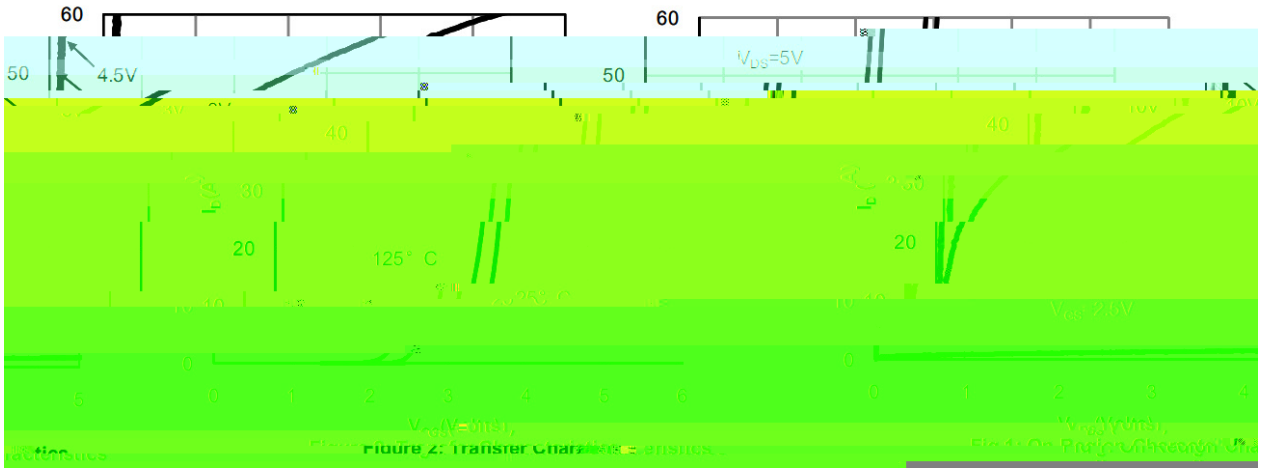


Figure 2: Transfer Characteristics

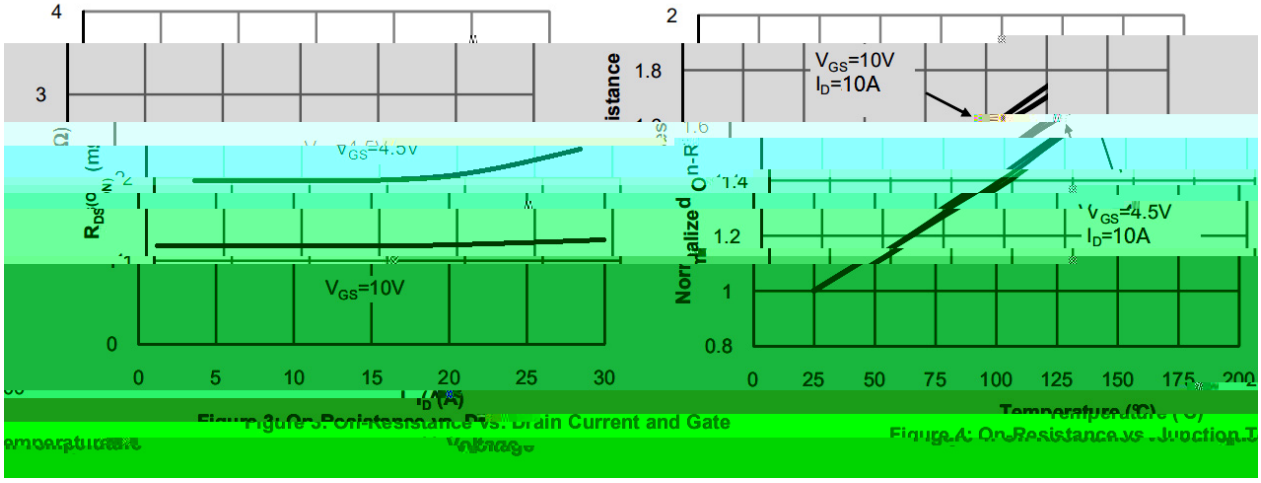
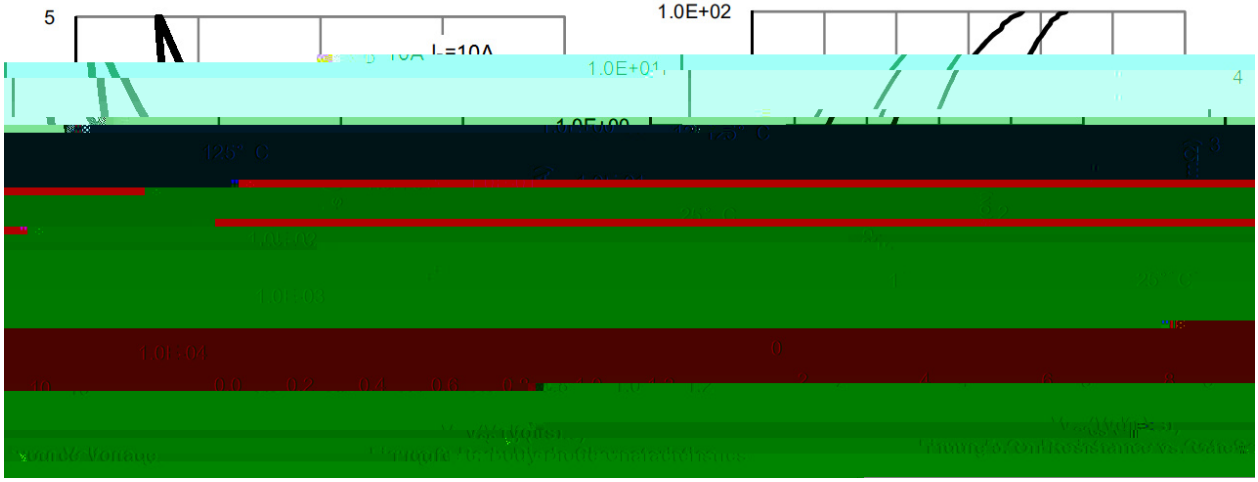
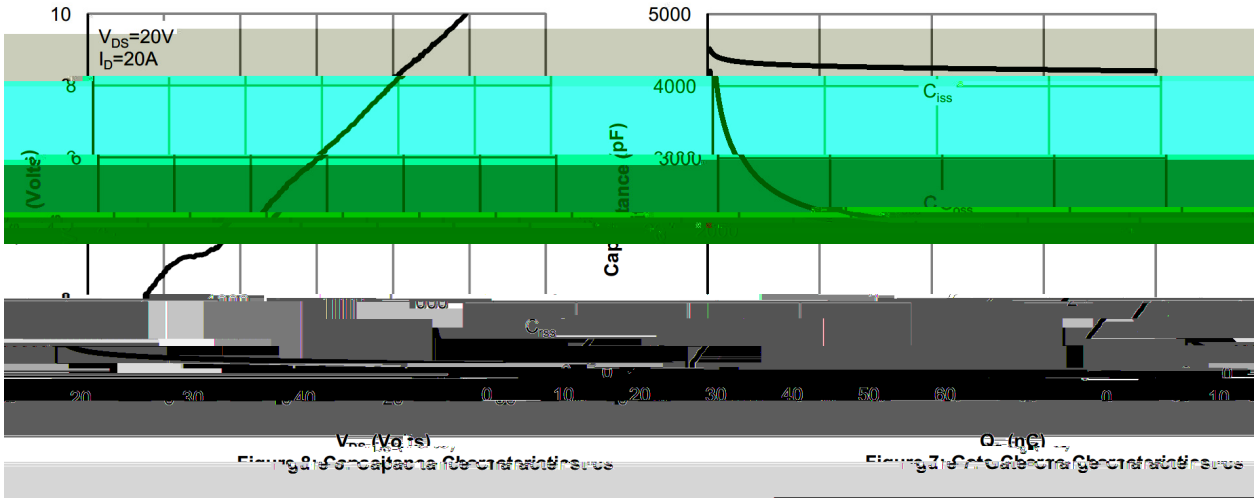


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature



/ Electrical Characteristic Curve



V_{DS} (Volts)

Figure 8. Capacitance Characteristics

Q_g (nC)

Figure 7. Gate Charge Characteristics

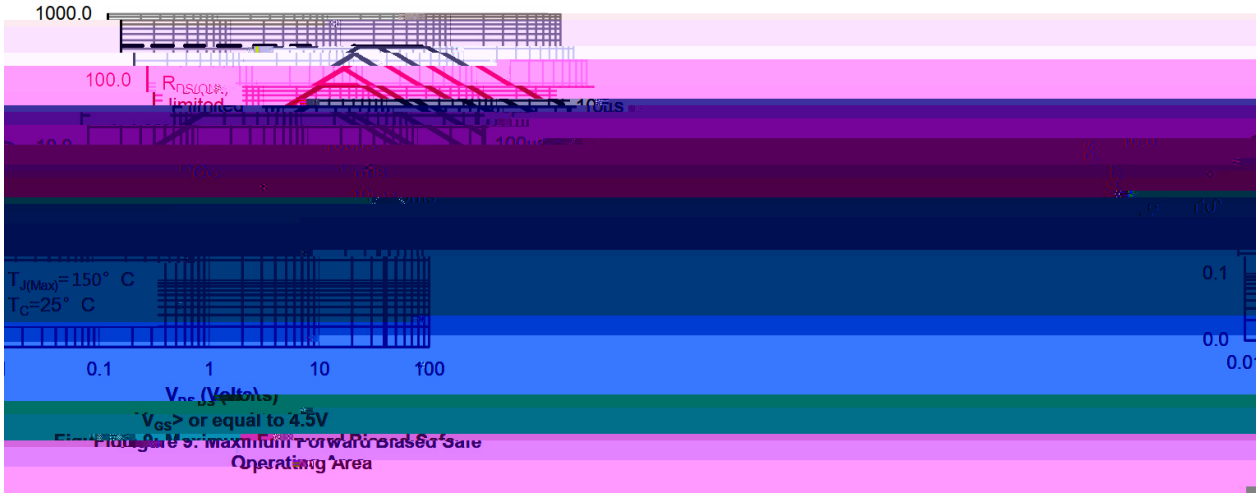


Figure 9. Maximum Forward Biased Safe Operating Area

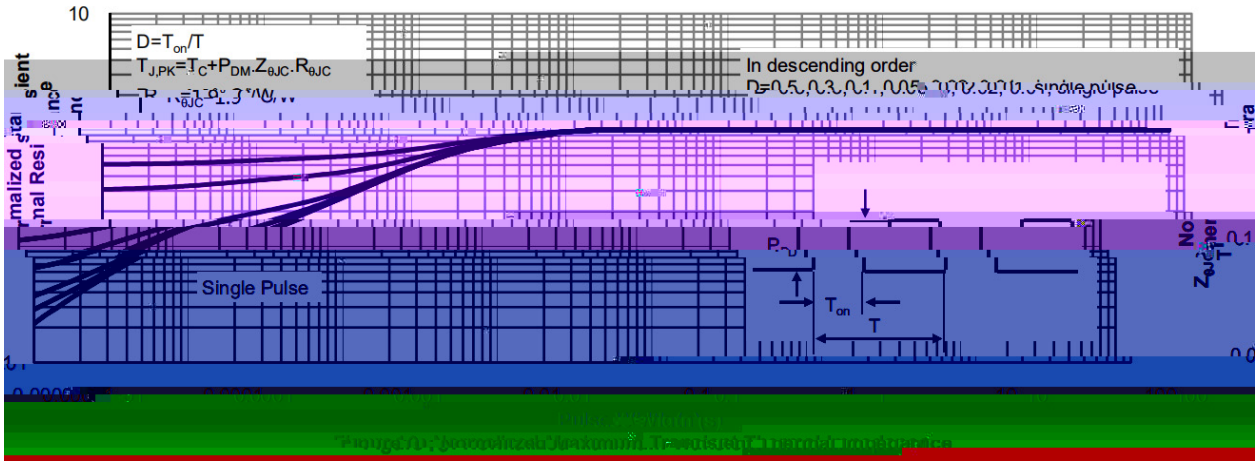


Figure 10. Normalized Transient Thermal Resistance Junction-to-Case

/ Marking Instructions

BR	Company Code
Q:	Automobile halogen-free product Code
015N04S	Product Type
****:	Lot No. Code, code change with Lot No

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

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1 أ ♬ □ 150 200 ژ 60 120sec;

2 □ 255±5 ژ ٨ 5±0.5sec;

3 ٩ ھ 2 10 /sec.

Note:

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

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

□ χ 260±5 ژ χ 10±