JMTG100N03B-P

Features

Excellent $R_{DS(ON)}$ and Low Gate Charge

100% UIS Tested

100% Vds Tested

Halogen-free; RoHS-compliant

Applications

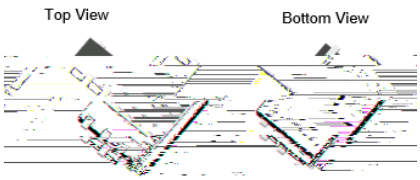
Load Switch

PWM Application

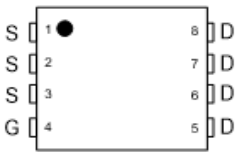
Power Management

Product Summary

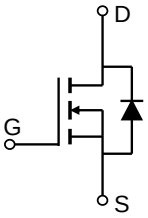
Parameters	Value	Unit
V_{DSS}	30	V
$V_{GS(th)\_Typ}$	1.6	V
I_D(@V_{GS}=10V)	44	A
$R_{DS(ON)\_Typ}$(@V_{GS}=10V	6.9	mΩ



PDFN5X6-8L



Pin Assignment



Schematic Diagram

Ordering Information

Device	Marking	MSL	Form	Package	Reel(pcs)	Per Carton (pcs)
JMTG100N03B-P	G100N03B	1	Tape&Reel	PDFN5x6-8L	5000	50000

Absolute Maximum Ratings (@ T_C = 25°C unless otherwise specified)

Symbol	Parameter		Value	Unit
V_{DS}	Drain-to-Source Voltage		30	V
V_{GS}	Gate-to-Source Voltage		±20	V
I_D	Continuous Drain Current	T_C = 25°C	44	A
		T_C = 100°C	28	
I_{DM}	Pulsed Drain Current [1]		Refer to Fig.4	A
E_{AS}	Single Pulsed Avalanche Energy [2]		31	mJ
P_D	Power Dissipation	T_C = 25°C	30	W
		T_C = 100°C	12	
T_J, T_{STG}	Junction & Storage Temperature Range		-55 to 150	°C

Thermal Characteristics

Symbol	Parameter	Max	Unit
R	Thermal Resistance, Junction to Ambient[3]	49	°C/W
R	Thermal Resistance, Junction to Case	4.2	

Electrical Characteristics (T_J = 25°C unless otherwise specified)

Symbol	Conditions	Min.	Typ.	Max.	Unit
Off Characteristics					
$V_{(BR)DSS}$		30	-	-	V
I_{DSS}		-	-	1.0	μA
I_{GSS}		-	-	±100	nA
$V_{GS(th)}$		1.1	1.6	2.1	V
		-	61 477.1 Q EMC /P AMCID 21/Lang		

Typical Performance Characteristics

Figure 1: Power De-rating

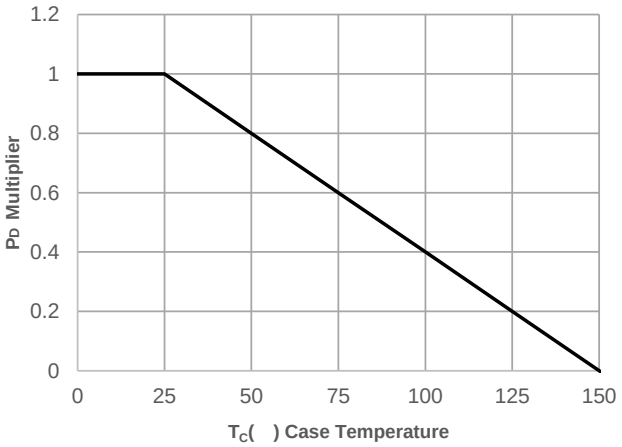
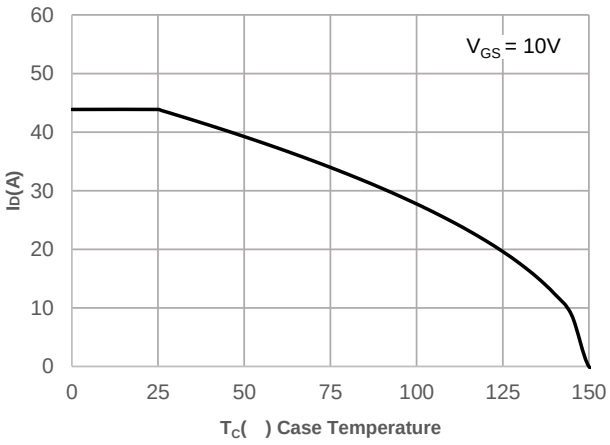
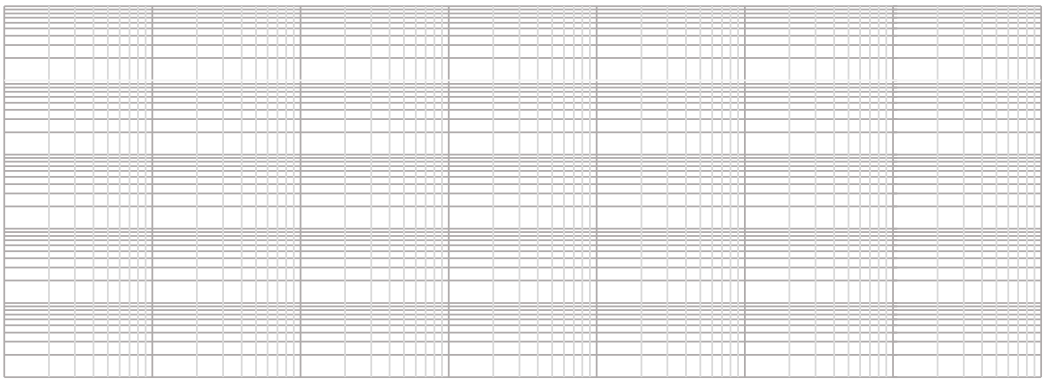
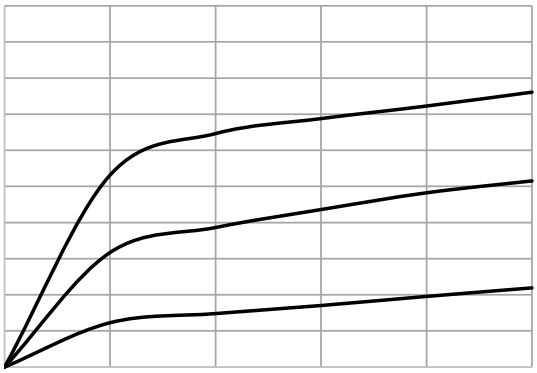


Figure 2: Current De-rating





Typical Performance Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown voltage vs. Junction Temperature

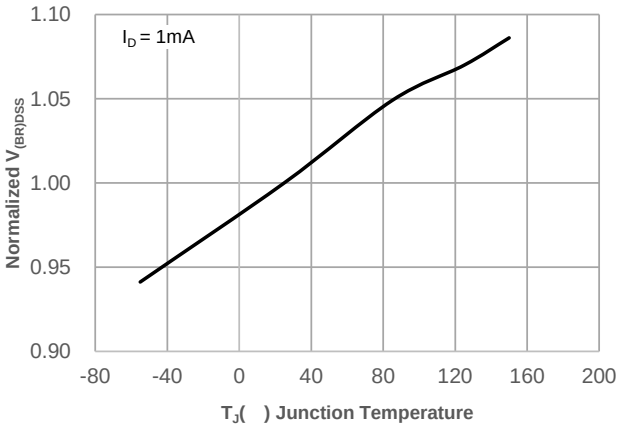


Figure 12: Normalized on Resistance vs. Junction Temperature

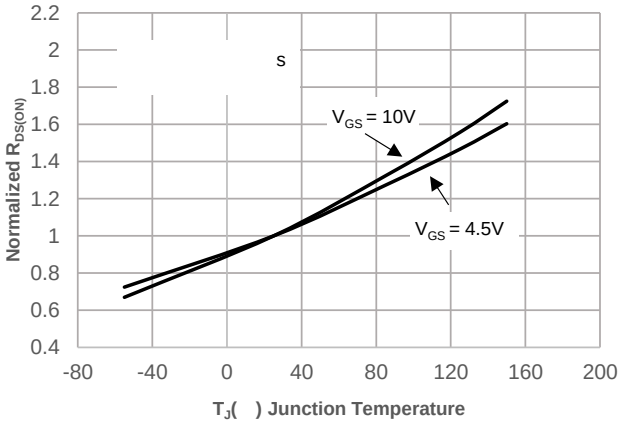


Figure 13: Normalized Threshold Voltage vs. Junction Temperature

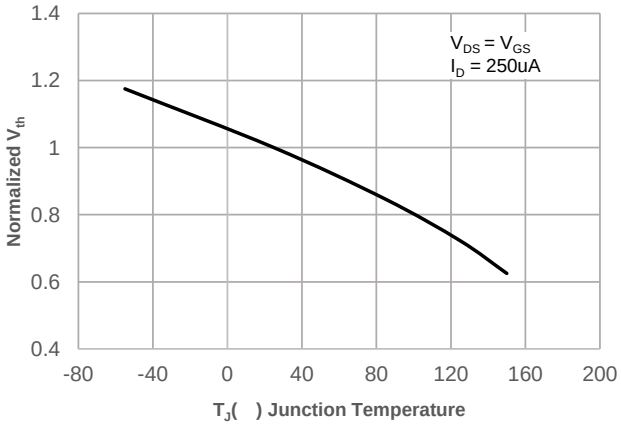


Figure 14: $R_{DS(ON)}$ vs. V_{GS}

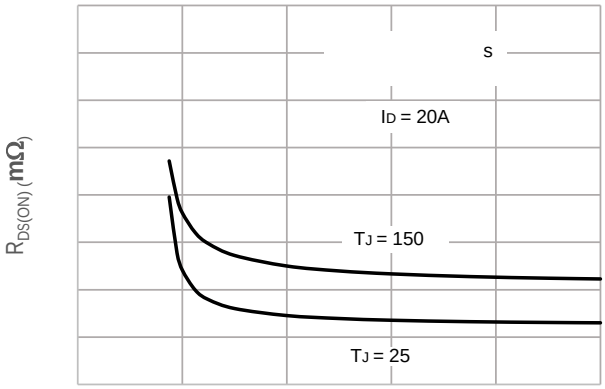
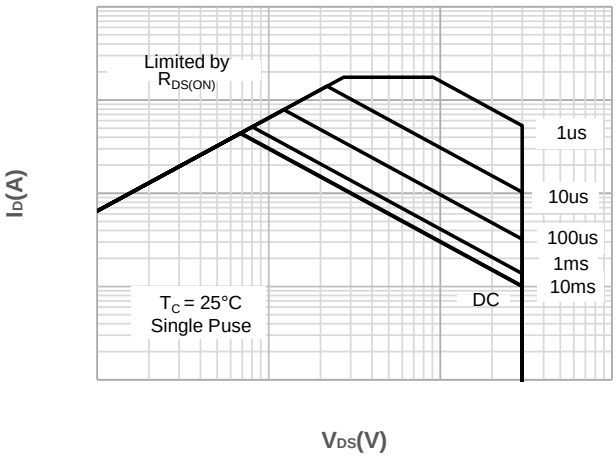


Figure 15: Maximum Safe Operating Area



All product information is copyrighted and subject to legal disclaimers.

Test Circuit

Figure 1: Gate Charge Test Circuit & Waveform

Package Mechanical Data(PDFN5X6-8L)

Information furnished in this document is believed to be accurate and reliable.
However, Jiangsu JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.
Information mentioned in this document is subject to change without notice, apart from that