JMTG035N04L

Features

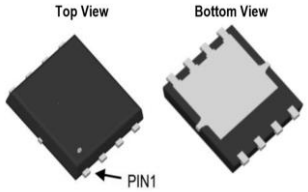
- Excellent $R_{DS(ON)}$ and Low Gate Charge
- 100% UIS Tested
- 100% Vds Tested
- Halogen-free; RoHS-compliant

Applications

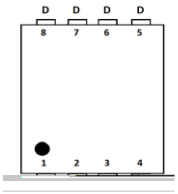
- Load Switch
- PWM Application
- Power Management

Product Summary

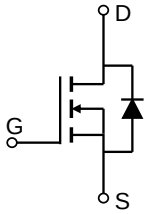
Parameters	Value	Unit
V_{DSS}	40	V
$V_{GS(th)_Typ}$	1.5	V
I_D(@V_{GS}=10V)	100	A
$R_{DS(ON)_Typ}$(@V_{GS}=10V)	2.4	mΩ
$R_{DS(ON)_Typ}$(@V_{GS}=4.5V)	3.0	mΩ



PDFN5X6-8L



Pin Assignment



Schematic Diagram

Ordering Information

Device	Marking	MSL	Form	Package	Reel(pcs)	Per Carton (pcs)
JMTG035N04L	G035N04L	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		40	V
V_{GS}	Gate-to-Source Voltage		±20	V
I_D	Continuous Drain Current	T_C = 25°C	100	A
		T_C = 100°C	63	
I_{DM}	Pulsed Drain Current [1]		Refer to Fig.4	A
E_{AS}	Single Pulsed Avalanche Energy [2]		306	mJ
P_D	Power Dissipation	T_C = 25°C	125	W
		T_C = 100°C	50	
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]	37	°C/W
R	Thermal Resistance, Junction to Case	1.0	

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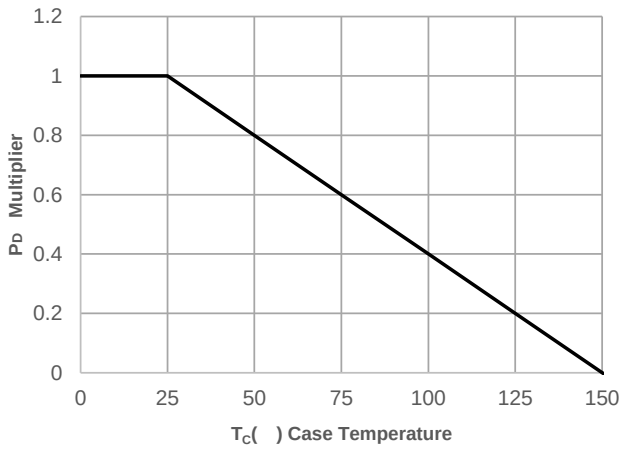
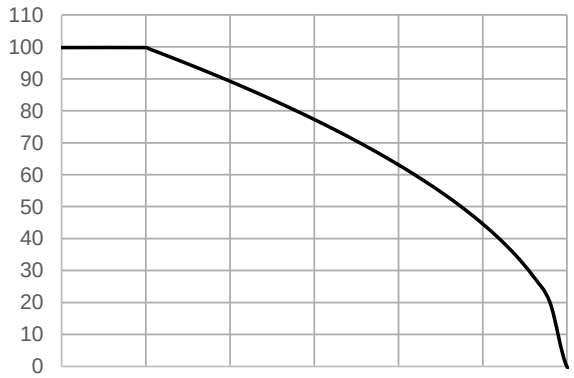
Electrical Characteristics (T_J = 25°C unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit
Off Characteristics				
$V_{(BR)DSS}$	40	-	-	V
I_{DSS}	-	-	1.0	μA
I_{GSS}	-	-	±100	nA
V				

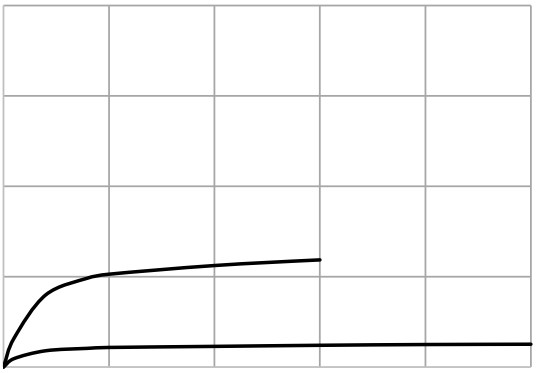
Typical Performance Characteristics

Figure 1: Power De-rating





Typical Performance Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown voltage vs. Junction Temperature

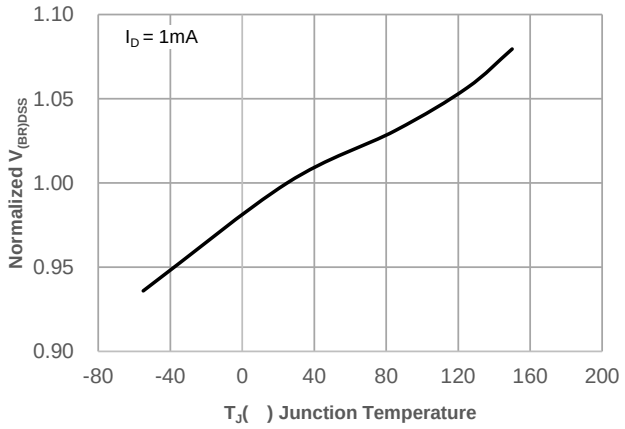


Figure 12: Normalized on Resistance vs. Junction Temperature

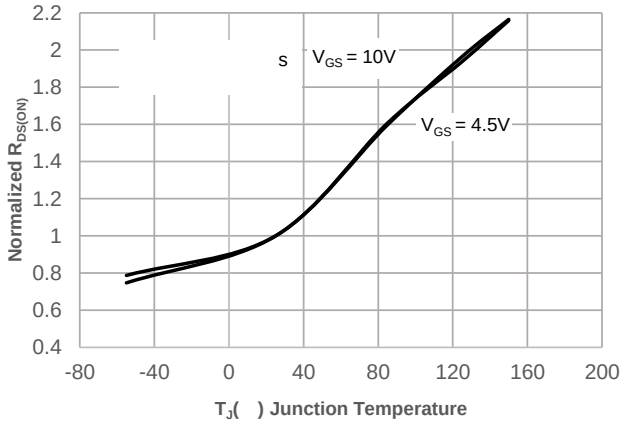


Figure 14: $R_{DS(ON)}$ vs. V_{GS}

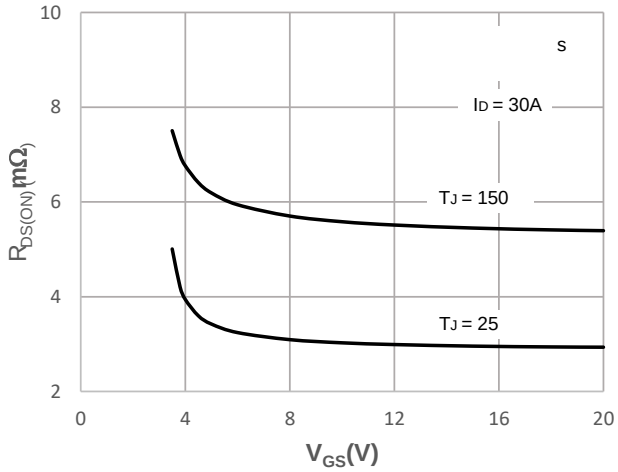
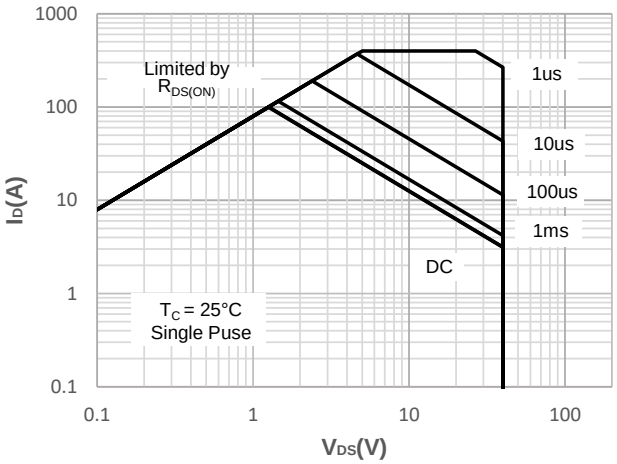


Figure 15: Maximum Safe Operating Area



Test Circuit

[redacted]

Figure 1: Gate Charge Test Circuit & Waveform

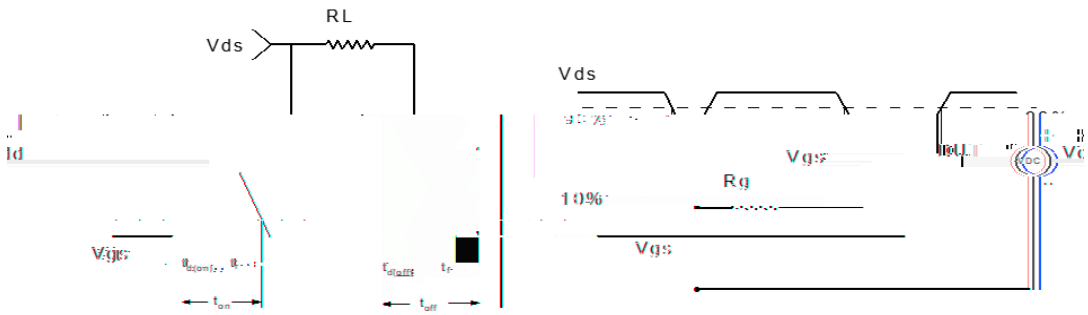
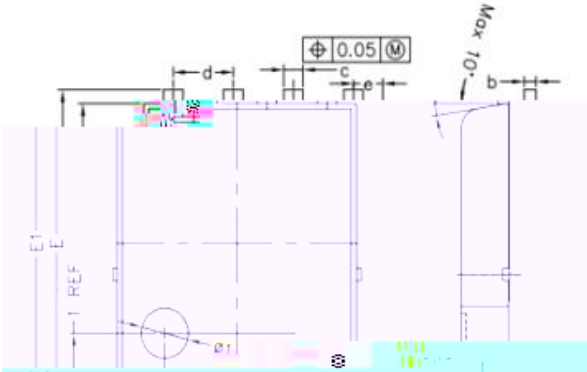
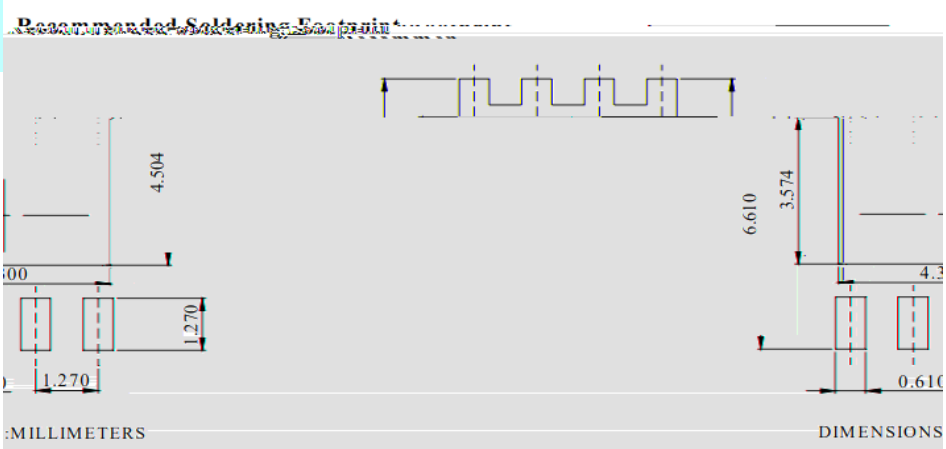


Figure 2: Resistive Switching Test Circuit & Waveform

Package Mechanical Data(PDFN 5X6-8L)



SYMBOLS	DIMENSION IN MM			DIMENSION IN INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
* A	0.900	1.000	1.100	0.035	0.039	0.043
A1	0.000	---	0.050	0.000	----	0.002
b	0.246	0.254	0.312	0.010	0.010	0.012
* c	0.310	0.410	0.510	0.012	0.016	0.020
d	1.27 BSC			0.050 BSC		



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