JMTG035N04L

Features

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

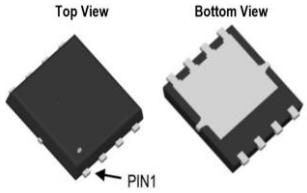
Applications

- Load Switch
- PWM Application
- Power Management

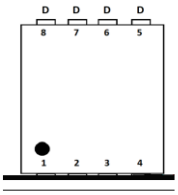
Product Summary

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

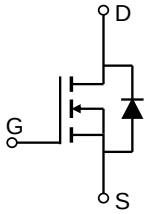
RoHS



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

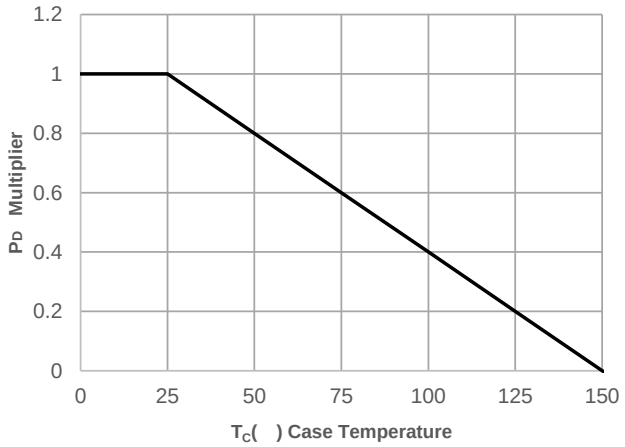
Symbol	Parameter	Max	Unit
R	Thermal Resistance, Junction to Ambient(3)	37	°C/W
R	Thermal Resistance, Junction to Case	1.0	

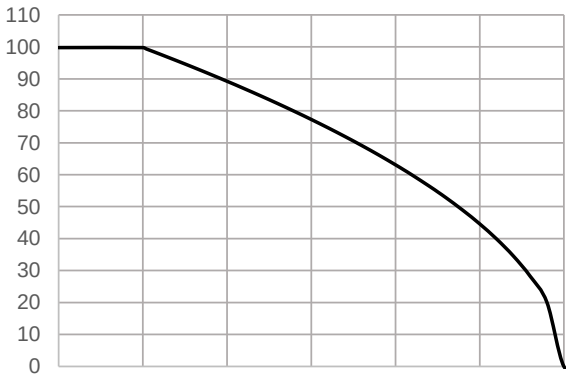
Electrical Characteristics (T_J = 25°C unless otherwise specified)

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

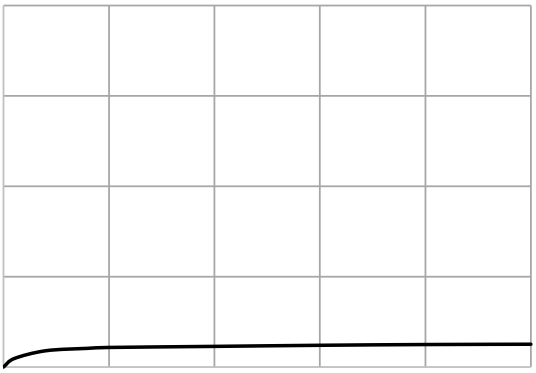
Typical Performance Characteristics

Figure 1: Power De-rating





Typical Performance Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown voltage vs. Junction Temperature

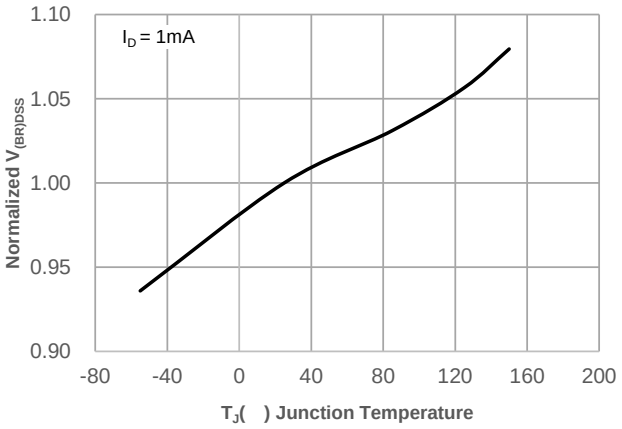


Figure 12: Normalized on Resistance vs. Junction Temperature

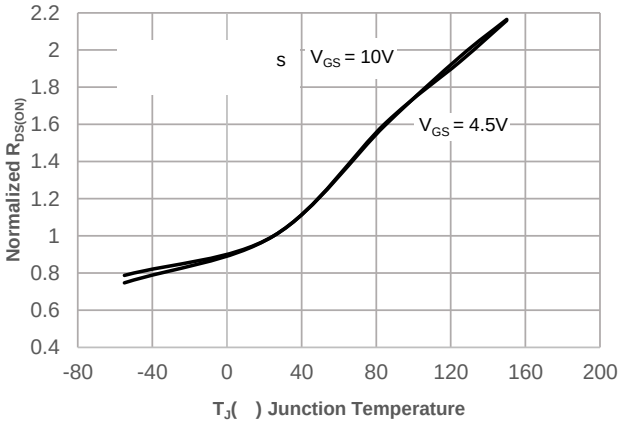


Figure 14: $R_{DS(ON)}$ vs. V_{GS}

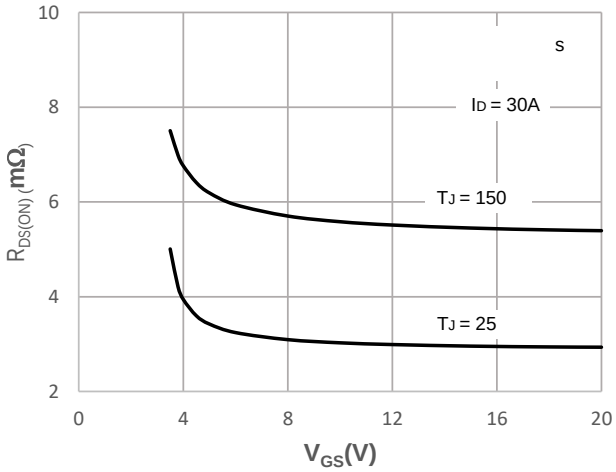
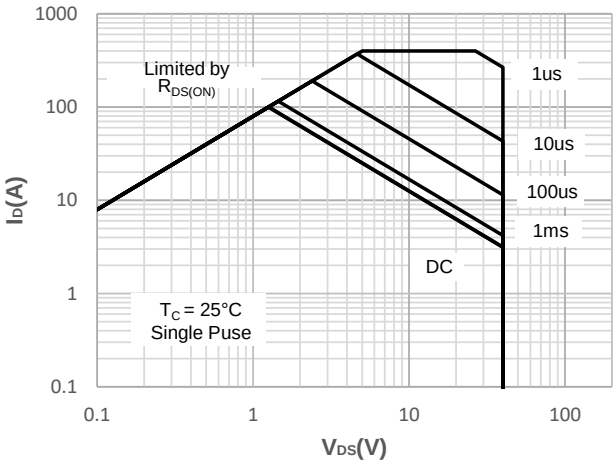


Figure 15: Maximum Safe Operating Area



Test Circuit

Figure 1: Gate Charge Test Circuit & Waveform

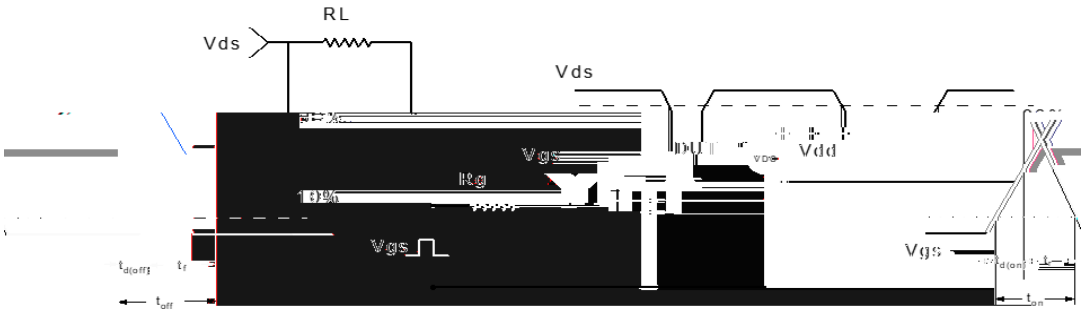
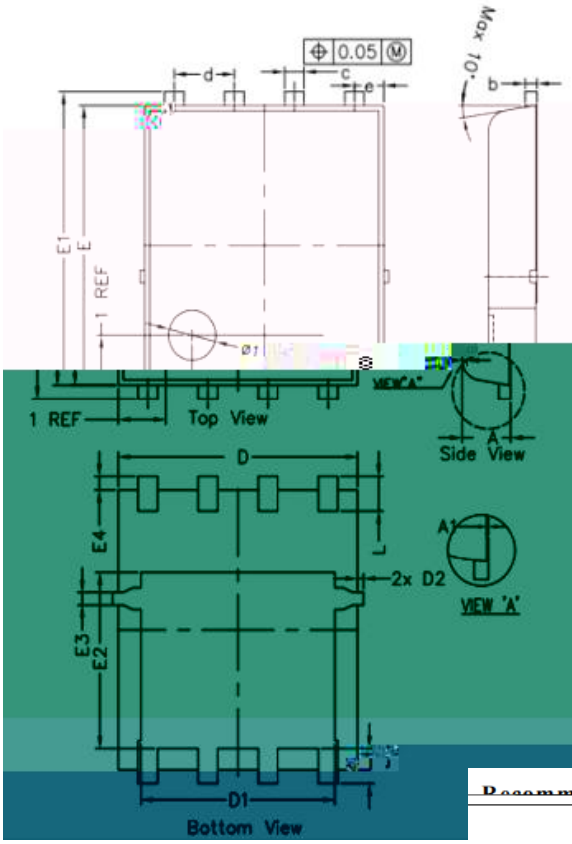
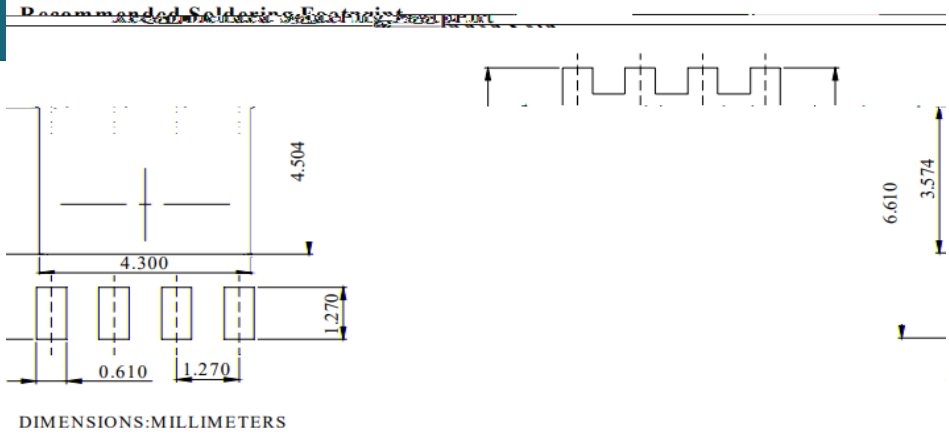


Figure 2: Resistive Switching Test Circuit & Waveform

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		
* D	4.950	5.050	5.150	0.195	0.199	0.203
D1	4.000	4.100	4.200	0.157	0.161	0.165
* D2	---	---	0.125	---	---	0.005
e	0.62 BSC			0.024 BSC		
* E	5.500	5.600	5.700	0.217	0.220	0.224
* E1	6.050	6.150	6.250	0.238	0.242	0.246
E2	3.425	3.525	3.625	0.135	0.139	0.143
E3	0.150	0.250	0.350	0.006	0.010	0.014
* E4	0.175	0.275	0.375	0.007	0.011	0.015
F	-	-	0.100	-	-	0.004
* L	0.500	0.600	0.700	0.02	0.02	0.03
L1	0.600		0.800	0.02	0.03	0.03



DIMENSIONS:MILLIMETERS