Description

JMT N-channel

Applications

- 20V, 50A
  $R_{DS(ON)}$ < 8.1m # V_{GS} = 4.5V
  $R_{DS(ON)}$ < 10.7m # V_{GS} = 2.5V
- Advanced Trench Technology
- Excellent $R_{DS(ON)}$ and Low Gate Charge
- Lead Free

TO-252-3L(DPAK) Top View

Package Marking and Ordering Information

Device Marking	Device	Outline	Package	Reel Size	Reel(pcs)	Per Carton (pcs)
JMTK2007A	JMTK2007A	TAPING	TO-252-3L	13"	2500	25000

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

Symbol	Parameter		Value	Units
V_{DS}	Drain-to-Source Voltage		20	V
V_{GS}	Gate-to-Source Voltage		±12	V
I_D	Continuous Drain Current	T_C = 25°C	50	A
		T_C = 100°C	32	
I_{DM}	Pulsed Drain Current (1)		200	A
E_{AS}	Single Pulsed Avalanche Energy (2)		49	mJ
P_D	Power Dissipation	T_C = 25°C	31	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (3)		32	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case		4.0	
T_J, T_{STG}	Junction & Storage Temperature Range		-55 to 150	°C

Typical Performance Characteristics

Figure 7: Normalized Breakdown voltage vs. Junction Temperature

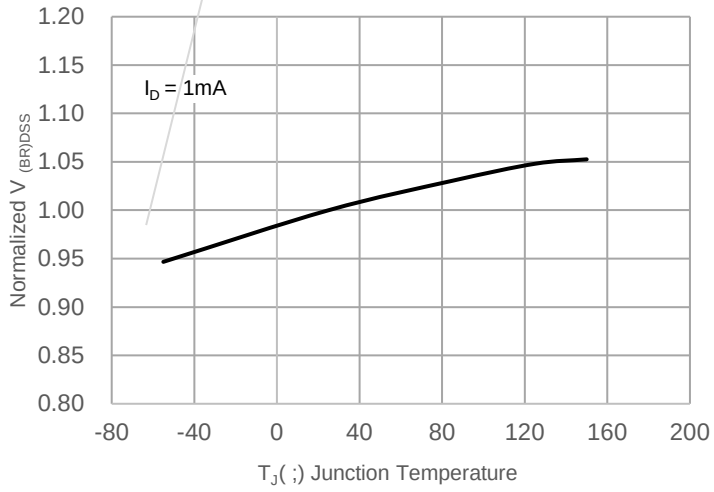
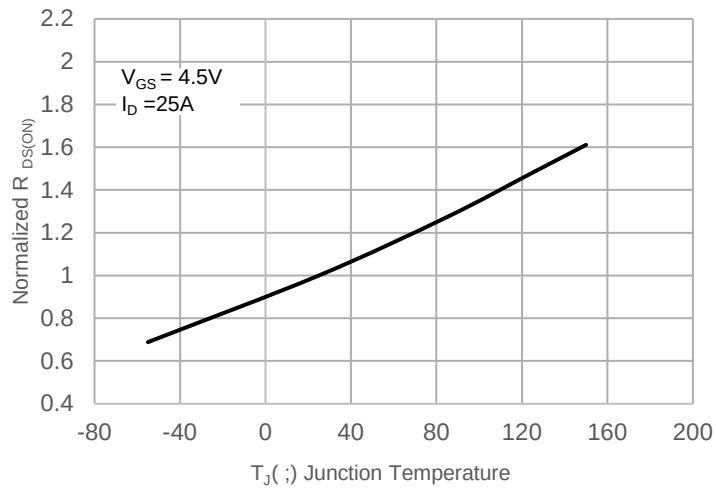
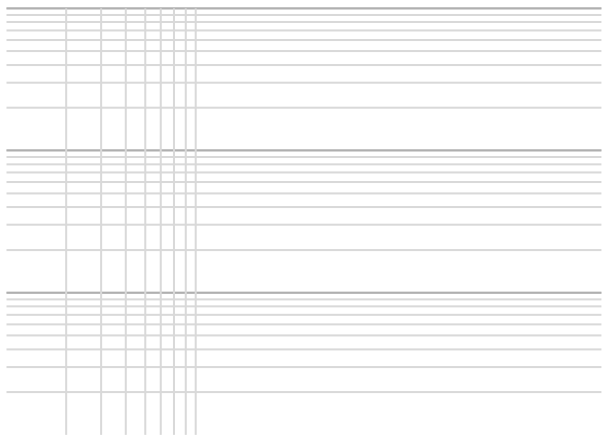


Figure 8: Normalized on Resistance vs. Junction Temperature





Test Circuit

Figure 1: Gate Charge Test Circuit & Waveform

Figure 2: Resistive Switching Test Circuit & Waveform

Figure 3: Unclamped Inductive Switching Test Circuit& Waveform

Figure 4: Diode Recovery Test Circuit & Waveform

Package Mechanical Data(TO-252-3L)

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