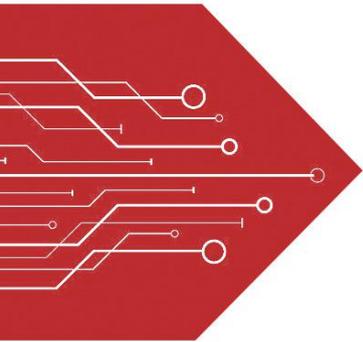


MSKSEMI

SEMICONDUCTOR



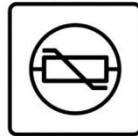
ESD



TVS



TSS



MOV

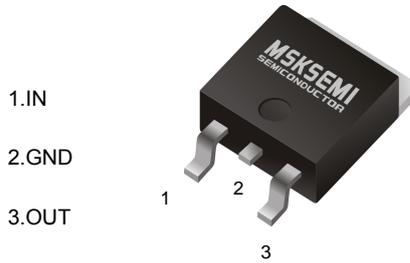


GDT



PLED

Product data sheet



TO-252

FEATURES

Maximum output current I_{OM} : 0.5 A
Output voltage V_o : 9V
Continuous total dissipation
 P_D : 1.25 W ($T_a = 25^\circ\text{C}$)

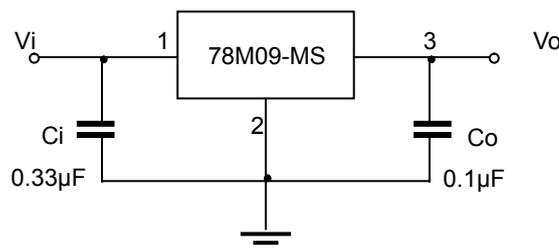
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

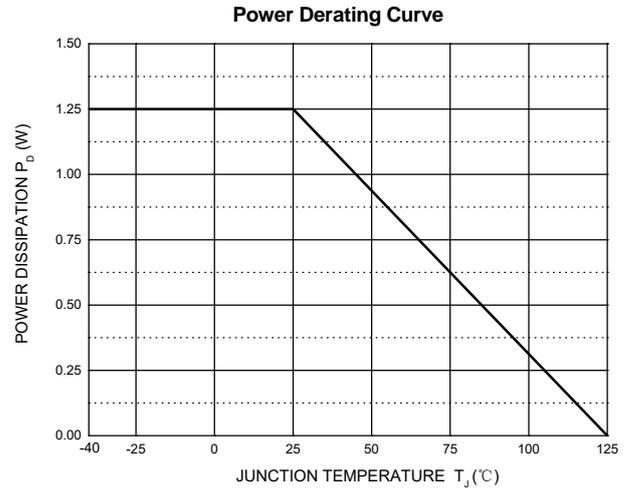
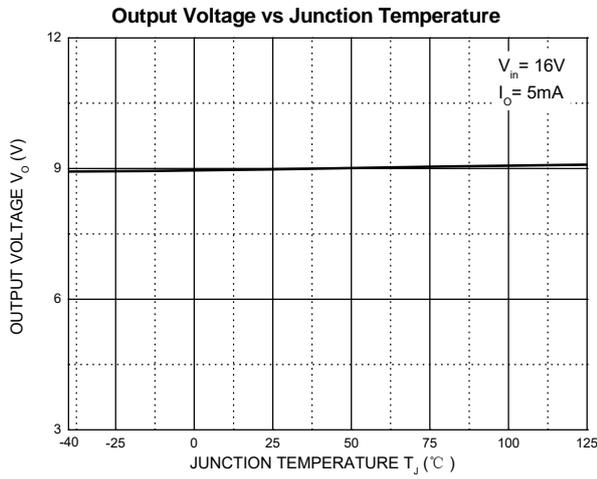
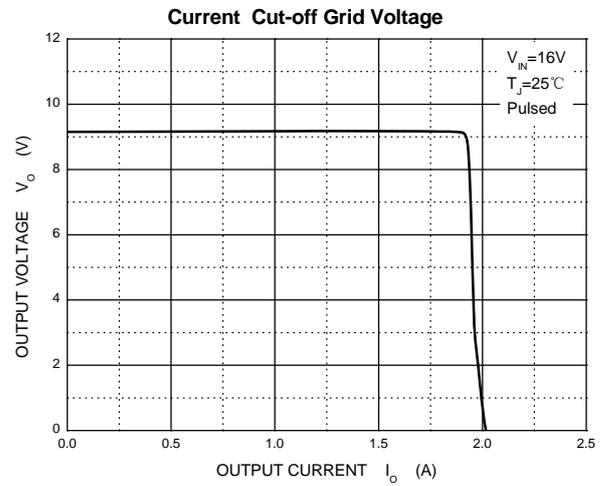
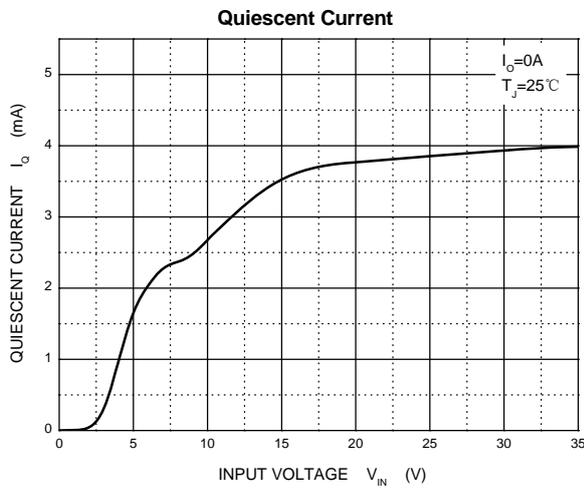
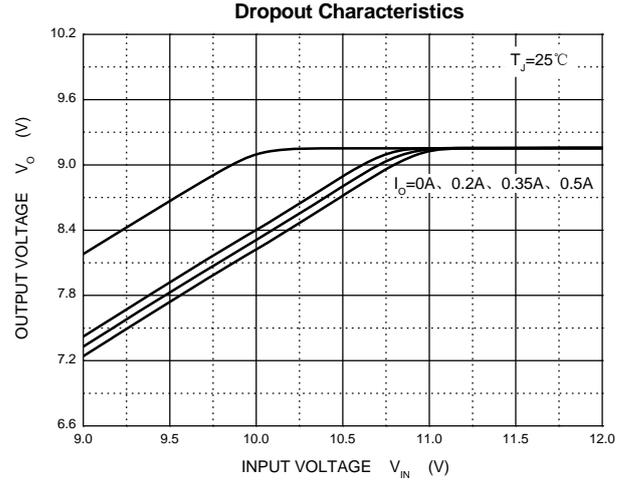
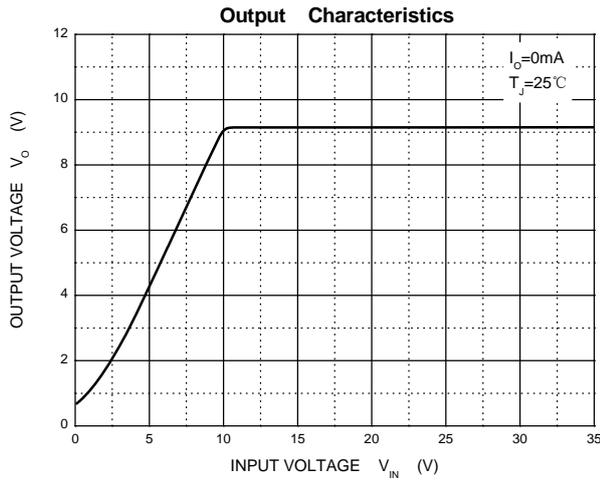
Parameter	Symbol	Value	Unit
Input Voltage	V_i	25	V
Operating Junction Temperature Range	T_{OPR}	-20-+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=16\text{V}$, $I_o=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

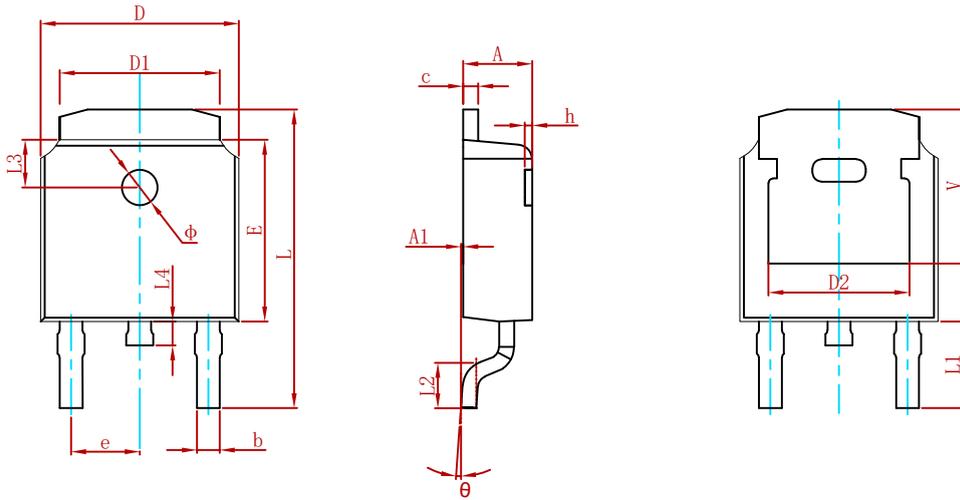
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	8.65	9	9.35	V
		$11.5\leq V_i\leq 24\text{V}$, $I_o=5\text{mA}-350\text{mA}$, $P_o\leq 15\text{W}$	$0-125^\circ\text{C}$	8.55	9	9.45
Load Regulation	ΔV_o	$I_o=5\text{mA}-500\text{mA}$	25°C	20	180	mV
		$I_o=5\text{mA}-200\text{mA}$	25°C	10	90	mV
Line Regulation	ΔV_o	$11.5\text{V}\leq V_i\leq 25\text{V}$, $I_o=200\text{mA}$	25°C	6	100	mV
		$12\text{V}\leq V_i\leq 25\text{V}$, $I_o=200\text{mA}$	25°C	2	50	mV
Quiescent Current	I_q	25°C		4.6	6	mA
Quiescent Current Change	ΔI_q	$11.5\text{V}\leq V_i\leq 25\text{V}$, $I_o=200\text{mA}$	$0-125^\circ\text{C}$		0.8	mA
	ΔI_q	$5\text{mA}\leq I_o\leq 350\text{mA}$	$0-125^\circ\text{C}$		0.5	mA
Output Noise Voltage	V_N	$10\text{Hz}\leq f\leq 100\text{KHz}$	25°C	60		μV
Ripple Rejection	RR	$13\leq V_i\leq 23\text{V}$, $f=120\text{Hz}$, $I_o=300\text{mA}$	$0-125^\circ\text{C}$	56	80	dB
Dropout Voltage	V_d	$I_o=350\text{mA}$	25°C	2		V
Short Circuit Current	I_{sc}	$V_i=16\text{V}$	25°C	250		mA
Peak Current	I_{pk}	25°C		0.5		A

TYPICAL APPLICATION



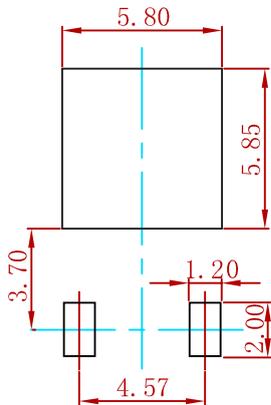


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
78M09-MS	TO-252	2500

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