

MSKSEMI

SEMICONDUCTOR



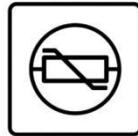
ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

FEATURES

Maximum output current

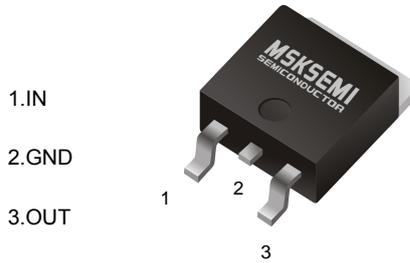
$I_{OM}: 0.5\text{ A}$

Output voltage

$V_O: 8\text{ V}$

Continuous total dissipation

$P_D: 1.25\text{ W}$



TO-252

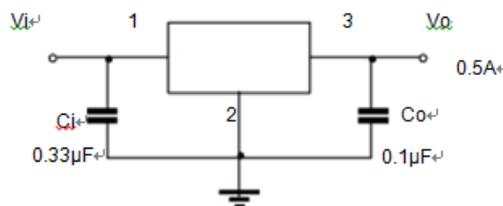
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

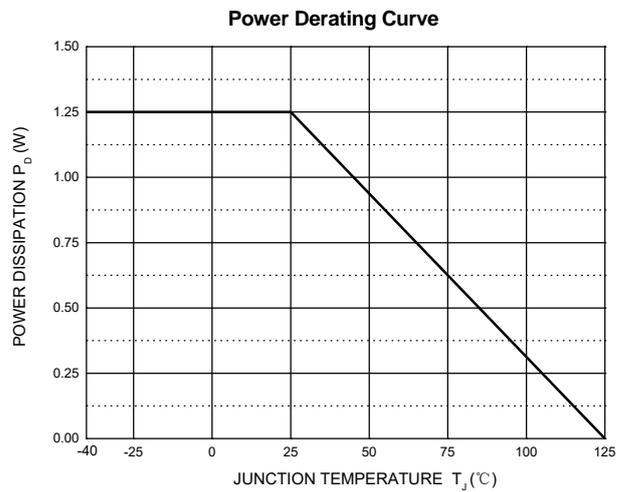
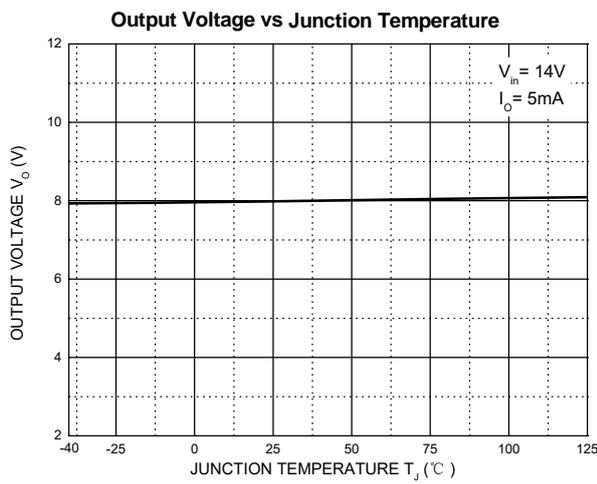
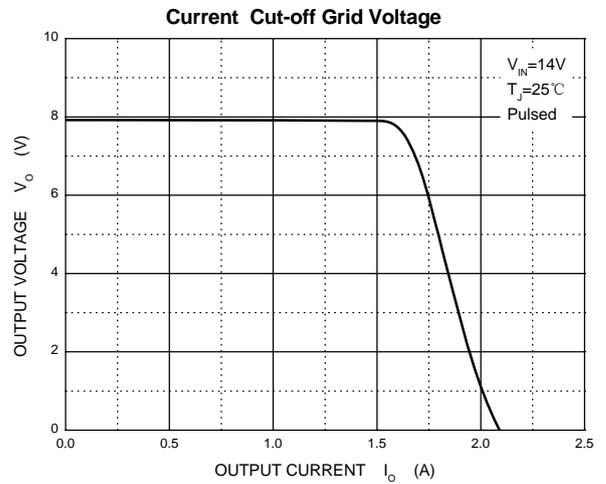
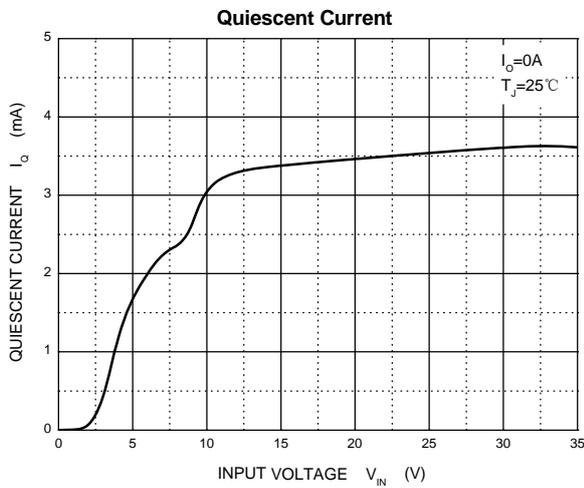
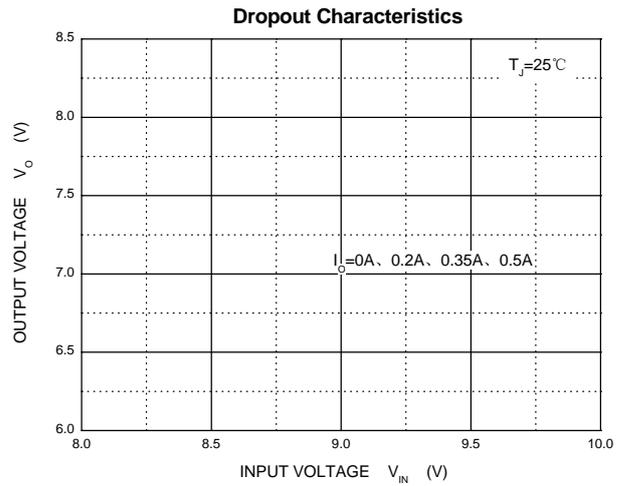
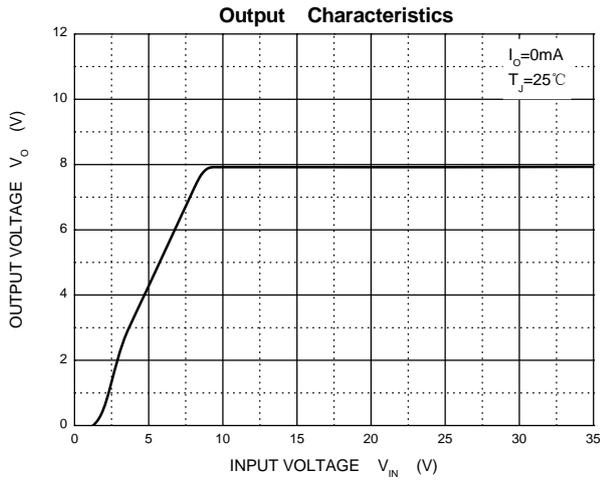
Parameter	Symbol	Value	Unit
Input Voltage	V_i	25	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=10\text{V}, I_o=350\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

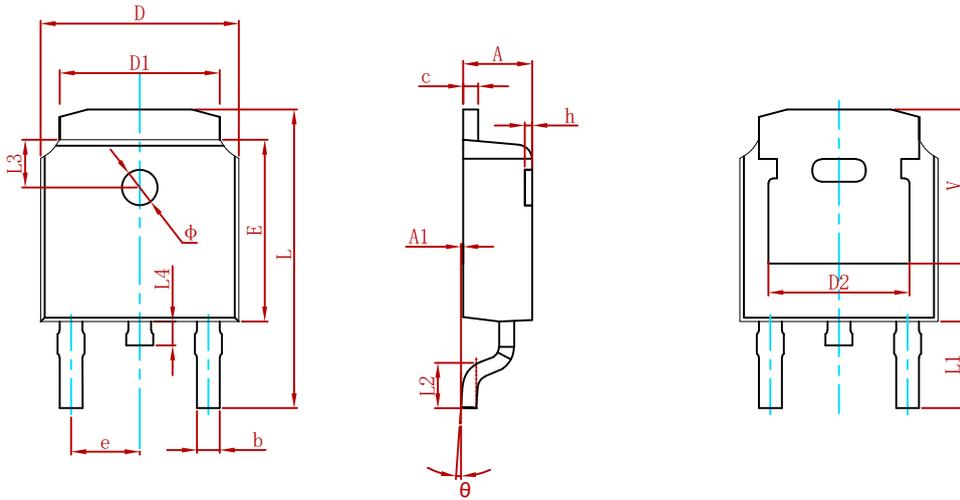
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$10.5\text{V} \leq V_i \leq 23\text{V}, I_o=5\text{mA}-350\text{mA} P_o \leq 15\text{W}$	7.6	8	8.4	V
Load Regulation	ΔV_o	$I_o=5\text{mA}-500\text{mA}$		20	160	mV
		$I_o=5\text{mA}-200\text{mA}$		10	80	mV
Line Regulation	ΔV_o	$10.5\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	-	6	100	mV
		$11\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	-	2	50	mV
Quiescent Current	I_q		-	4.6	6	mA
Quiescent Current Change	ΔI_q	$10.5\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$			0.8	mA
		$5\text{mA} \leq I_o \leq 350\text{mA}$			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		52		uV
Ripple Rejection	RR	$11.5\text{V} \leq V_i \leq 21.5\text{V}, f=120\text{Hz}, I_o=300\text{mA}$	56	80		dB
Dropout Voltage	V_d	$I_o=350\text{mA}$		2		V
Short Circuit Current	I_{sc}	$V_i=14\text{V}$		250		mA
Peak Current	I_{pk}			0.5		A

TYPICAL APPLICATION



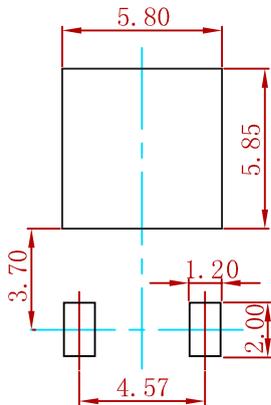


PACKAGE MECHANICAL DATA



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
78M08-MS	TO-252	2500

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