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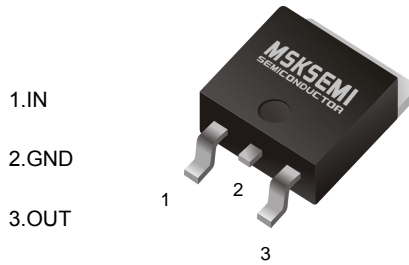


GDT



PLED

Product data sheet



TO-252

FEATURES

Maximum output current

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

Output voltage

$$V_O: 6\text{V}$$

Continuous total dissipation

$$P_D: 1.25 \text{ W}$$

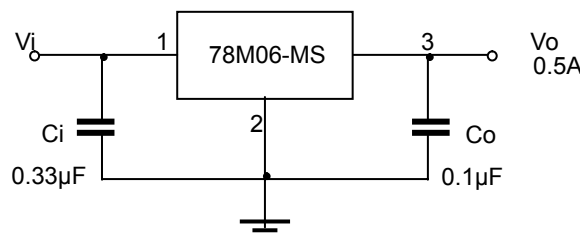
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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

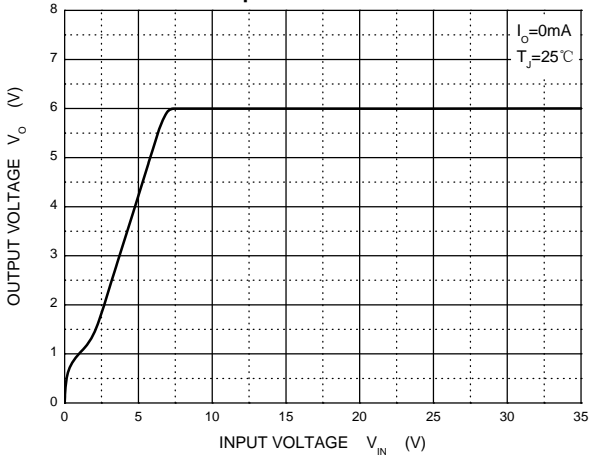
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=11\text{V}$, $I_O=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	5.75	6	6.25	V
		$8\text{V} \leq V_i \leq 21\text{V}$, $I_o=5\text{mA}-350\text{mA}$ $P_o \leq 15\text{W}$	0-125°C	5.7	6	6.3
Load Regulation	ΔV_o	$I_o=5\text{mA}-0.5\text{A}$	25°C	18	120	mV
		$I_o=5\text{mA}-200\text{mA}$	25°C	10	60	mV
Line Regulation	ΔV_o	$8\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$	25°C	5	100	mV
		$9\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$	25°C	1.5	50	mV
Quiescent Current	I_q	25°C	4.3	6	mA	
Quiescent Current Change	ΔI_q	$9\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$	0-125°C		0.8	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 350\text{mA}$	0-125°C		0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C	45		uV
Ripple Rejection	RR	$9\text{V} \leq V_i \leq 19\text{V}$, $f=120\text{Hz}$, $I_o=300\text{mA}$	0-125°C	59	80	dB
Dropout Voltage	V_d	$I_o=350\text{mA}$	25°C	2		V
Short Circuit Current	I_{sc}	$V_i=11\text{V}$	25°C	270		mA
Peak Current	I_{pk}	25°C		0.5		A

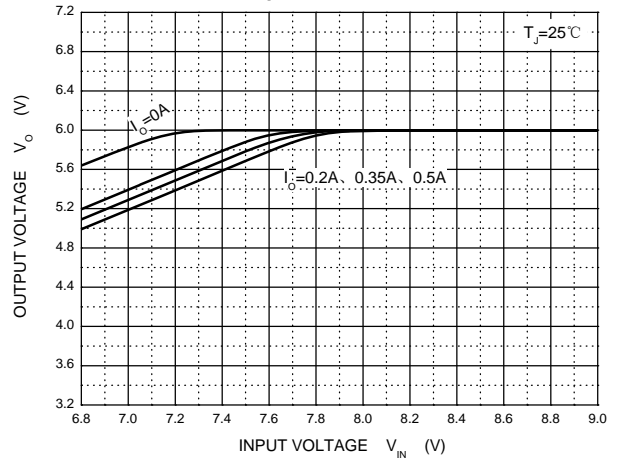
TYPICAL APPLICATION



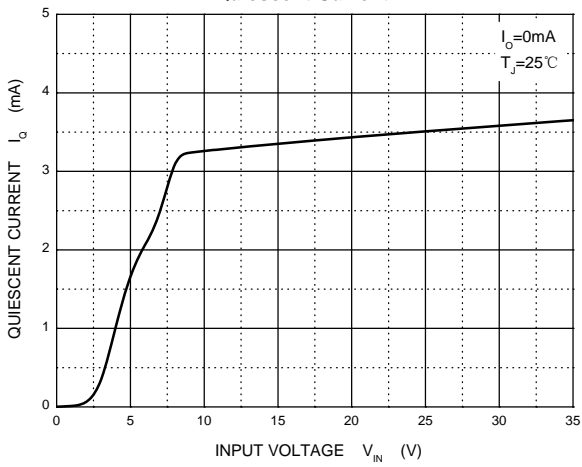
Output Characteristics



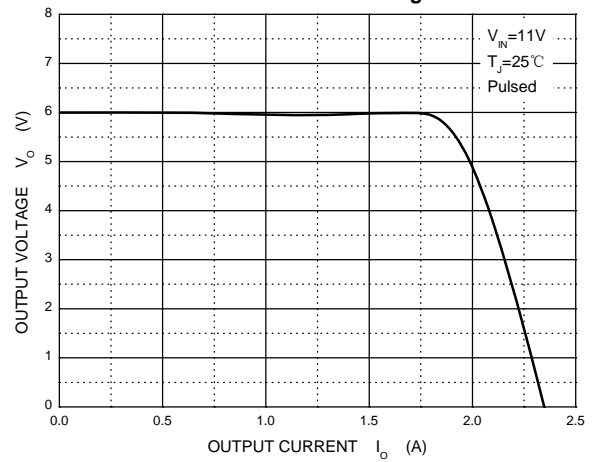
Dropout Characteristics



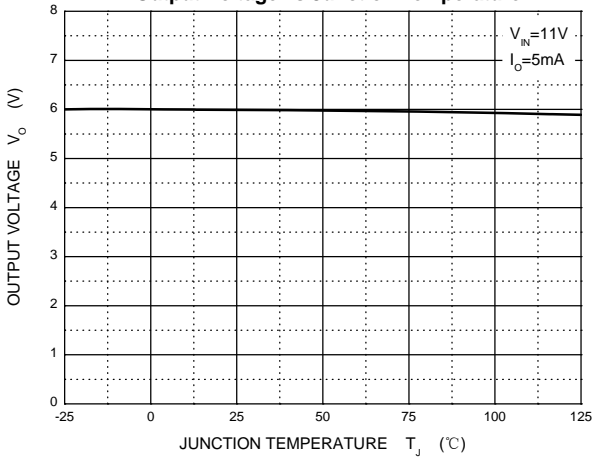
Quiescent Current



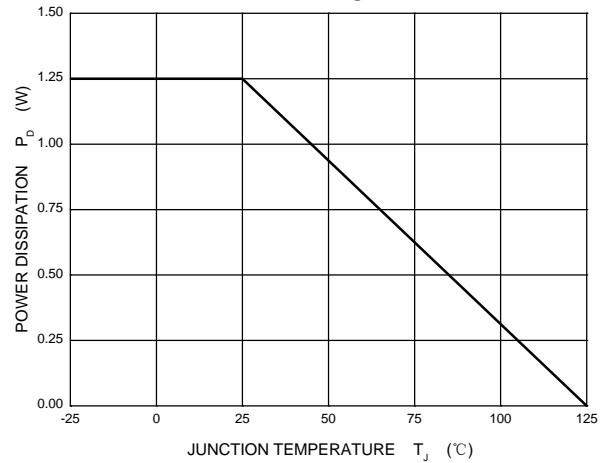
Current Cut-off Grid Voltage



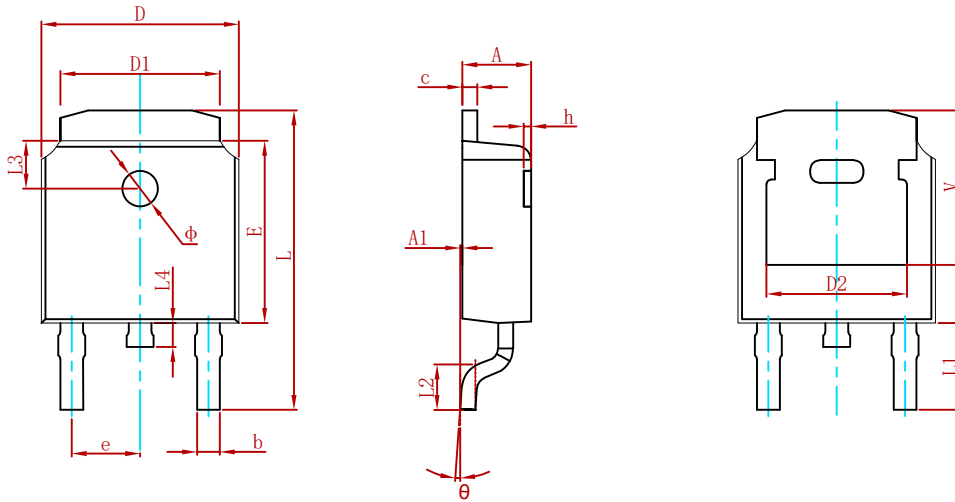
Output Voltage vs Junction Temperature



Power Derating Curve

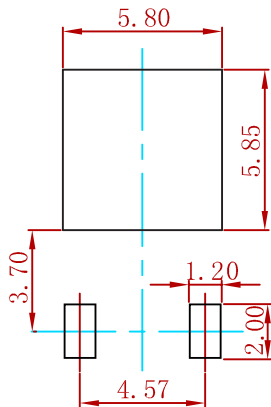


PACKAGE MECHANICAL DATA



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
78M06-MS	TO-252	2500

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