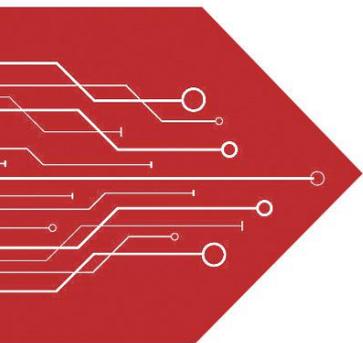


MSKSEMI

SEMICONDUCTOR



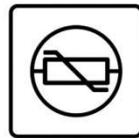
ESD



TVS



TSS



MOV

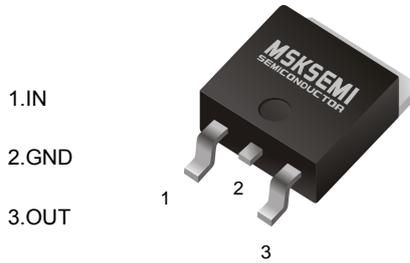


GDT



PLED

Product data sheet



TO-252

FEATURES

- Maximum Output current
 I_{OM} : 0.5 A
- Output voltage
 V_O : 5V
- Continuous total dissipation
 P_D : 1.25 W

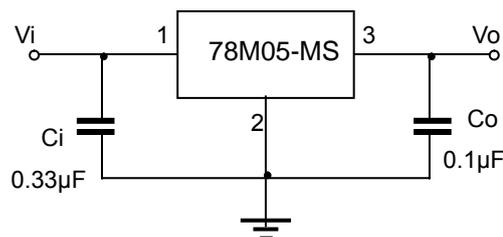
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

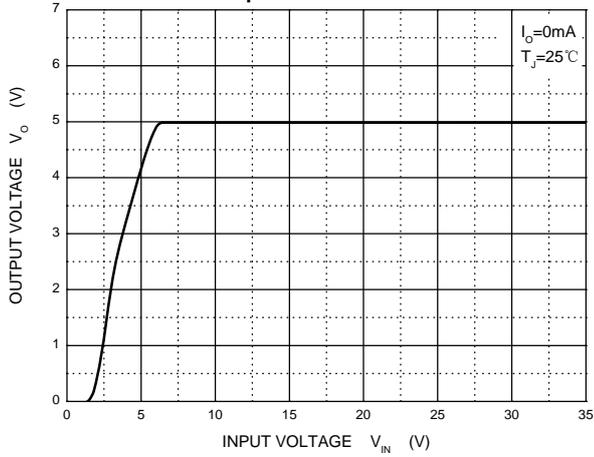
ELECTRICAL CHARACTERISTICS ($V_i=10V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$25^\circ C$	4.8	5	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-350mA$ $P_o \leq 15W$	0-125°C	4.75	5	5.25
Load Regulation	ΔV_o	$I_o=5mA-0.5A$ $25^\circ C$		15	100	mV
		$I_o=5mA-200mA$ $25^\circ C$		5	50	mV
Line regulation	ΔV_o	$7V \leq V_i \leq 25V, I_o=200mA$ $25^\circ C$		3	100	mV
		$8V \leq V_i \leq 25V, I_o=200mA$ $25^\circ C$		1	50	mV
Quiescent Current	I_q	$25^\circ C$		4.2	6	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 25V, I_o=200mA$ $0-125^\circ C$			0.8	mA
		$5mA \leq I_o \leq 350mA$ $0-125^\circ C$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$ $25^\circ C$		40	200	uV
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz, I_o=300mA$ $0-125^\circ C$	62	80		dB
Dropout Voltage	V_d	$I_o=350mA$ $25^\circ C$		2	2.5	V
Short Circuit Current	I_{sc}	$V_i=10V$ $25^\circ C$		300		mA
Peak Current	I_{pk}	$25^\circ C$		0.5		A

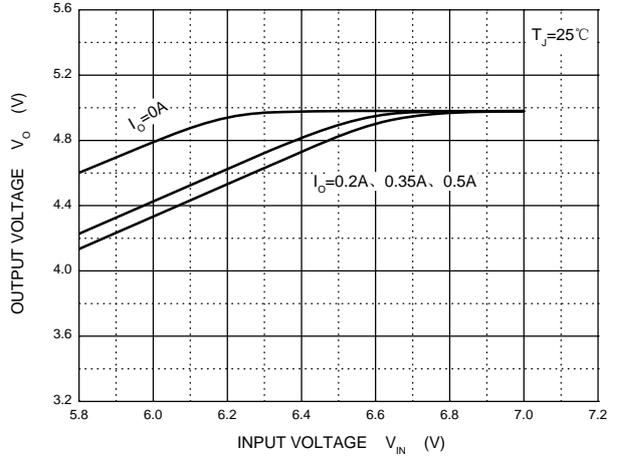
TYPICAL APPLICATION



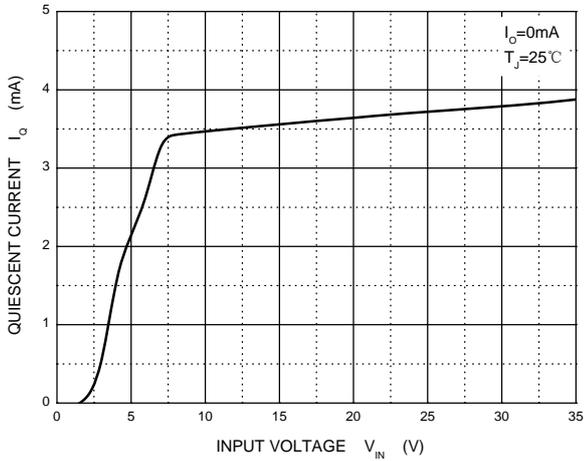
Output Characteristics



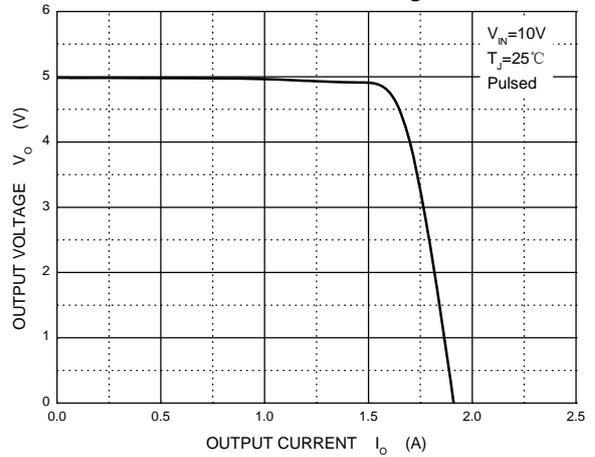
Dropout Characteristics



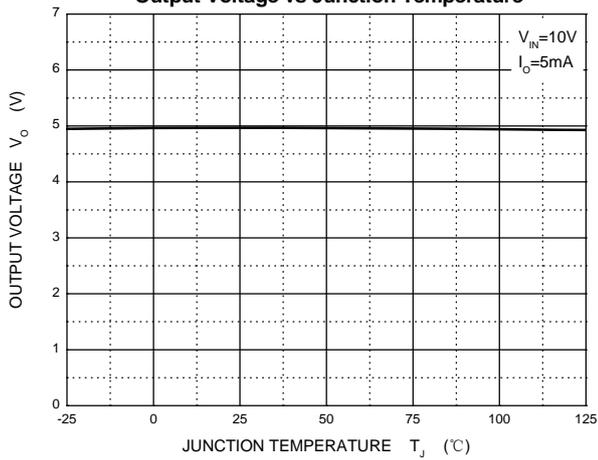
Quiescent Current



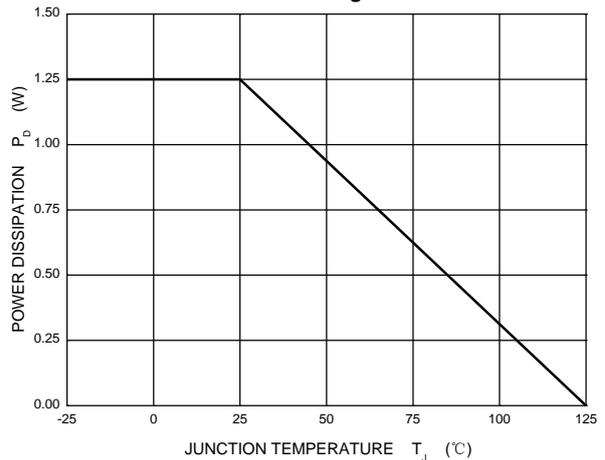
Current Cut-off Grid Voltage



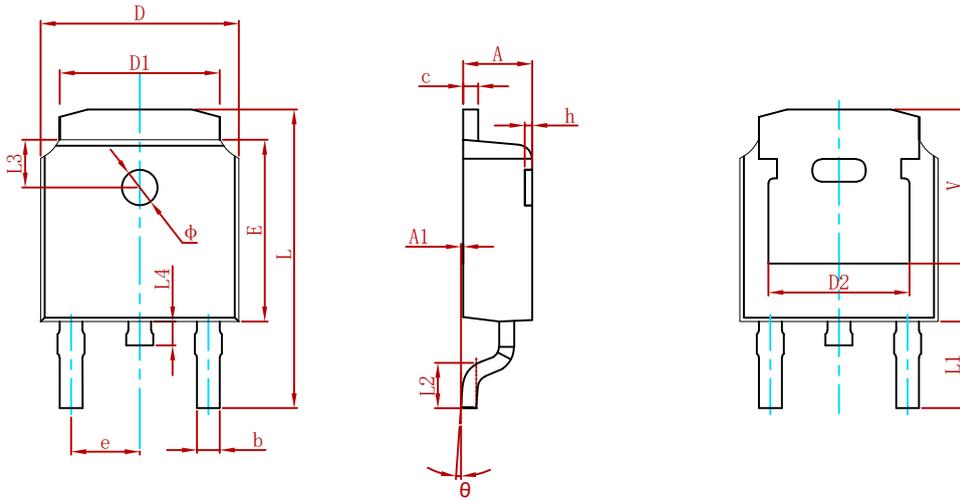
Output Voltage vs Junction Temperature



Power Derating Curve

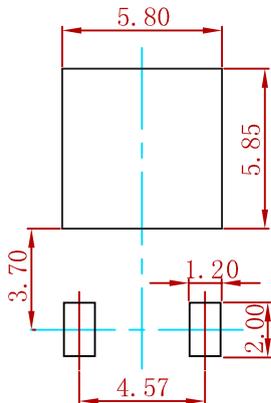


PACKAGE MECHANICAL DATA



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
78M05-MS	TO-252	2500

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