

Features

- Output Current in Excess of 1.0 Ampere
- Internal Thermal Overload Protection
- Internal Short-circuit Current Limiting
- High Power Dissipation Capability
- Moisture Sensitivity Level 1
- Halogen Free."Green"Device^(Note1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

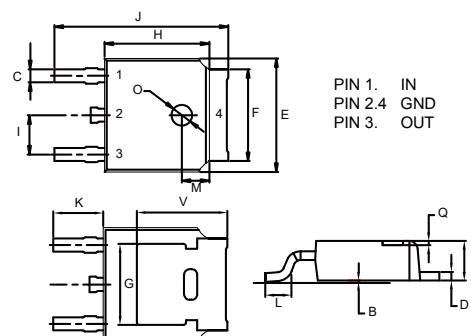
Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Power Dissipation	P_D	1.25	W
Operating Junction Temperature $T_{J(A)}$ * ^	T_{OPR}	0~125	°C
Storage Temperature Range	T_{STG}	-55~150	°C
Thermal Resistance junction to Ambient	$R_{\theta JA}$	100	°C/W

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Three-Terminal Positive Voltage Regulators

DPAK(TO-252)



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		TYP.
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		TYP.
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		TYP.
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		TYP.

Electrical Characteristics

($V_i=10V$, $I_o=500mA$, $0^{\circ}C < T_j < 125^{\circ}C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, Unless Otherwise Specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^{\circ}C$	4.8	5.0	5.2	V
		$8V \leq V_i \leq 20V$, $5mA \leq I_o \leq 1000mA$, $P_D=15W$	4.75	5.0	5.25	V
Load Regulation	ΔV_o	$5mA \leq I_o \leq 1000mA$, $T_j=25^{\circ}C$	-	-	100	mV
		$250mA \leq I_o \leq 750mA$, $T_j=25^{\circ}C$	-	-	50	mV
Line Regulation	ΔV_o	$7.5V \leq V_i \leq 20V$, $I_o=0.5A$	-	-	100	mV
		$8.0V \leq V_i \leq 12V$, $I_o=0.5A$	-	-	50	mV
Quiescent Current	I_q	$T_j=25^{\circ}C$	-	-	8.0	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 25V$, $I_o=500mA$, $5mA \leq I_o \leq 1000mA$	-	-	0.8	mA
			-	-	0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100Hz$	-	42	-	μV
Ripple Rejection	RR	$8V \leq V_i \leq 18V$, $f=120Hz$, $I_o=0.3A$, $T_j=25^{\circ}C$	62	-	-	dB
Dropout Voltage	V_d	$V_i=7V$, $I_o=1A$	4.8	-	5.2	V
Output Short Circuit Current	I_{sc}	$V_i=35V$, $T_a=25^{\circ}C$	-	220	-	mA
Output Current	I_o	$T_j=25^{\circ}C$	-	1	-	A

Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:2.5Kpcs/Reel

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp** . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp** . and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[MC78D05CDT-TP](#)