

## Features

- Output Current in Excess of 0.5 Ampere
- Internal Thermal Overload Protection
- Internal Short-circuit Current Limiting
- High Power Dissipation Capability
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

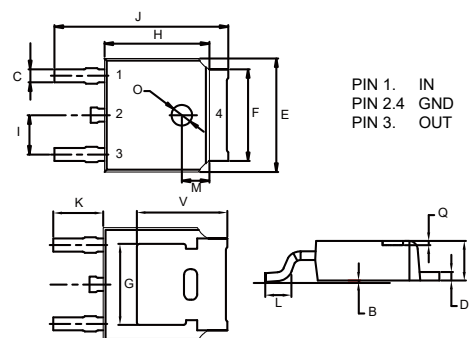
Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	35	V
Operating Junction Temperature Range	$T_{OPR}$	0~125	°C
Storage Temperature Range	$T_{STG}$	-65~150	°C

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)



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**

 ( $V_i=19V$ ,  $I_o=350mA$ ,  $0^\circ C < T_j < 125^\circ C$ ,  $C_i=0.33\mu F$ ,  $C_o=0.1\mu F$ , Unless Otherwise Specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$T_j=25^\circ C$	11.5	12.0	12.5	V
		$14.5V \leq V_i \leq 27V$ , $5mA \leq I_o \leq 350mA$ , $P_D \leq 15W$ ,	11.4	12.0	12.6	V
Load Regulation	$\Delta V_o$	$5mA \leq I_o \leq 500mA$ , $T_j=25^\circ C$	-	25	240	mV
		$5mA \leq I_o \leq 200mA$ , $T_j=25^\circ C$	-	10	120	mV
Line Regulation	$\Delta V_o$	$14.5V \leq V_1 \leq 30V$ , $I_o=0.2A$	-	10	100	mV
		$16.0V \leq V_1 \leq 30V$ , $I_o=0.2A$	-	3.0	50	mV
Quiescent Current	$I_q$	$T_j=25^\circ C$	-	4.6	6.0	mA
Quiescent Current Change	$\Delta I_q$	$14.5V \leq V_i \leq 30V$ , $I_o=0.2A$	-	-	0.8	mA
		$5mA \leq I_o \leq 350mA$	-	-	0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100Hz$	-	75	-	$\mu V$
Ripple Rejection	RR	$15V \leq V_i \leq 25V$ , $f=120Hz$ , $I_o=0.3A$ , $T_j=25^\circ C$	-	55	80	dB
Dropout Voltage	$V_d$	$I_o=0.35A$ , $T_j=25^\circ C$	-	2.0	-	V
Output Short Circuit Current	$I_{sc}$	$V_i=19V$ , $T_j=25^\circ C$	-	240	-	mA
Peak Output Current	$I_{PK}$	$T_j=25^\circ C$	-	0.7	-	A

### Typical Application

