

**TECHNICAL DATA**  
**DATA SHEET 599, REV. A**  
*Formerly part number –SHD52622*

## FIXED POSITIVE 5.0 VOLT REGULATOR

### FEATURES:

- **FIXED VOLTAGE REGULATOR IN A TO-257 PACKAGE**
- **SIMILAR to INDUSTRY TYPE 7805A**

### MAXIMUM RATINGS

All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

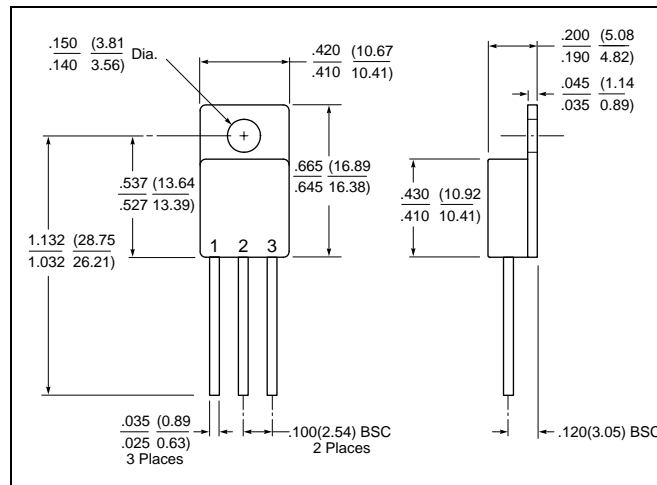
Parameter	Conditions		Maximum	Units
Input Voltage	-	-	35	Vdc
Ambient Operating Temperature Range ( $T_A$ )	-	-	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	-	-	-65 to +150	$^\circ\text{C}$
Thermal Resistance ( $R\theta_{JC}$ )	-	-	6.3	$^\circ\text{C/W}$
Rated Power	$T_C = +25^\circ\text{C}$	-	20	W

### ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Minimum	Maximum	Units
Output Voltage ( $V_{OUT}$ )	$T_A = 25^\circ\text{C}$	4.95	5.05	V
	$V_{IN} = 7.5\text{V to }20\text{V}$ $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	4.85	5.15	V
Line Regulation ( $V_{RLINE}$ )	$V_{IN} = 7.5\text{V to }20\text{V}$ $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	-	5.0 12	mV
	$V_{IN} = 8.0\text{V to }12\text{V}$ $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	-	4.0 10	mV
Load Regulation ( $V_{RLOAD}$ )	$I_O = 5.0\text{ mA to }1.0\text{ A}$ $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	-	12 25	mV
	$I_O = 250\text{ mA to }750\text{ mA}$ $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	-	6.0 15	mV
Standby Current Drain ( $I_{SCD}$ )	-	-	6.0 6.5	mA
Standby Current Drain Change With Line ( $\Delta I_{SCD}$ (Line))	$V_{IN} = 7.5\text{V to }20\text{V}$	-	0.8	mA
Standby Current Drain Change With Load ( $\Delta I_{SCD}$ (Load))	$I_O = 5.0\text{ mA to }1000\text{mA}$	-	0.5	mA
Dropout Voltage ( $V_{DO}$ )	$\Delta V_{OUT} = 100\text{mV}$ , $I_O = 1.0\text{A}$	-	2.5	V
Short Circuit Current ( $I_{DS}$ )	$V_{IN} = 35\text{V}$ , Maximum assured short circuit protection $-55\text{ to }+150$	-	1.2 2.8	A
Ripple Rejection ( $\frac{\Delta V_{IN}}{\Delta V_{OUT}}$ )	$f = 120\text{ Hz}$ , $\Delta V_{IN} = 10\text{V}$	66	-	dB
	If not tested, shall be guaranteed to the spec limits $-55\text{ to }+125$	60	-	dB
Output Noise Voltage ( $N_O$ ) If not tested, shall be guaranteed to the spec limits	$T_A = 25^\circ\text{C}$ , $f = 10\text{Hz to }100\text{kHz}$	-	40	$\mu\text{V/V RMS}$
Long Term Stability ( $\frac{\Delta V_{OUT}}{\Delta t}$ ) If not tested, shall be guaranteed to the spec limits	$T_A = 25^\circ\text{C}$ , $t = 1000\text{ hrs.}$	-	75	mV

**Note:** Output Voltage tolerance; +/- 1% @  $25^\circ\text{C}$ , +/- 2% from  $-55^\circ$  to  $+80^\circ\text{C}$

**MECHANICAL DIMENSIONS: In Inches / mm**



**TO-257**

**PINOUTS**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
VOLTAGE REGULATOR TO-257 PACKAGE	INPUT	GROUND	OUTPUT

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