

TECHNICAL DATA
DATA SHEET 329, REV. A
Formerly part number SHD52621

FIXED POSITIVE 1.5 AMP 12 VOLT REGULATOR

FEATURES:
ISOLATED HERMETIC PACKAGE
SIMILAR to INDUSTRY TYPE 7815A

MAXIMUM RATINGS

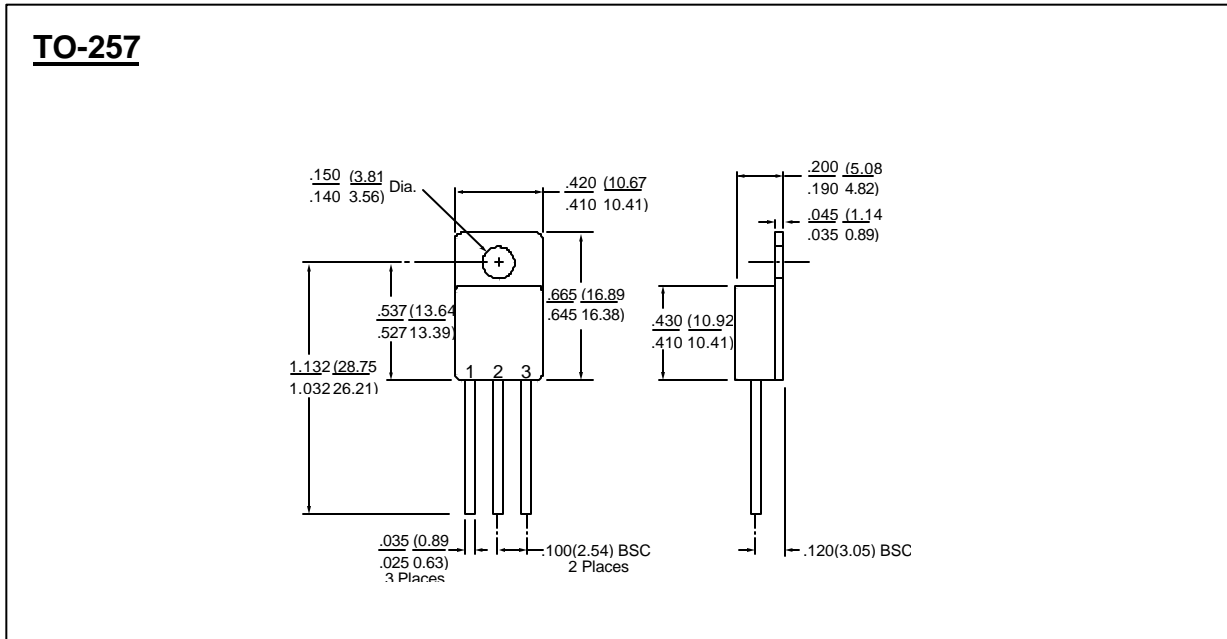
All ratings are at $T_C = 25^\circ\text{C}$ unless otherwise specified.

Parameter	Conditions		Maximum	Units
Input Voltage	$V_O = 15\text{V}$	-	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 ($R_{\theta JC}$)	-	-	4.3	$^\circ\text{C/W}$
Rated Power	$T_C = +25^\circ\text{C}$	-	15	W

ELECTRICAL CAHRACTERISTICS

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units	
V_O	Output Voltage	$T_j = 25^\circ\text{C}$	11.88	12	12.12	V	
		$P_D \leq 15\text{W}, 5\text{ mA} \leq I_O \leq 1\text{A}$ $14.5\text{V} \leq V_{IN} \leq 27\text{V}$	11.64		12.36	V	
V_{RLINE}	Line Regulation	$14.5\text{V} \leq V_{IN} \leq 27\text{V}$	$T_A = 25^\circ\text{C}$		18	mV	
			$-55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$		50	mV	
		$16\text{V} \leq V_{IN} \leq 22\text{V}$	$T_C = 25^\circ\text{C}$		9	mV	
			$-55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$		30	mV	
V_{RLOAD}	Load Regulation	$T_j = 25^\circ\text{C}$	$5\text{ mA} \leq I_O \leq 1.5\text{A}$		32	mV	
			$250\text{ mA} \leq I_O \leq 750\text{mA}$		20	mV	
		$5\text{ mA} \leq I_O \leq 0.5\text{A}, -55^\circ \leq T_C \leq +125^\circ\text{C}$				60	mV
I_Q	Quiescent Current	$T_C = 25^\circ\text{C}$			6	mA	
		$-55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$			6.5	mA	
ΔI_Q	Quiescent Current Change	$5\text{ mA} \leq I_O \leq 1.0\text{A}, -55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$			0.5	mA	
		$15\text{V} \leq V_{IN} \leq 30\text{V}, -55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$			0.8	mA	
V_{DO}	Dropout Voltage	$T_C = 25^\circ\text{C}, I_O = 1.0\text{A}$			2.5	V	
$I_{O(pk)}$	Peak Output Current	$T_C = 25^\circ\text{C}$		1.5		A	
I_{OS}	Short Circuit Current	$V_{IN} = 35\text{V}$	$T_C = 25^\circ\text{C}$			1.2	A
			$-55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$			2.8	
$\frac{\Delta V_{IN}}{\Delta V_{OUT}}$	Ripple Rejection	$f = 120\text{Hz}$ $\Delta V_{IN} = 10\text{V}$	$I_O \leq 1\text{A}, T_C = 25^\circ\text{C}$		61	70	dB
			$I_O \leq 500\text{ mA}, -55^\circ\text{C} \leq T_C \leq +125^\circ\text{C}$		54		dB
N_O	Output Noise Voltage	$T_C = 25^\circ\text{C}, f = 10\text{Hz to } 100\text{kHz}$			40	$\mu\text{V/V rms}$	
$\frac{\Delta V_{OUT}}{\Delta t}$	Long Term Stability	$T_C = 25^\circ\text{C}, t = 1000\text{ hours}$			75	mV	

MECHANICAL DIMENSIONS



PINOUT TABLE

TYPE	PIN 1	PIN 2	PIN 3
TO - 257, +12V Regulator	V _{IN}	GROUND	V _{OUT}

TECHNICAL DATA

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