

TECHNICAL DATA
DATA SHEET 178, REV. A
Formerly part number SHD52625

FIXED NEGATIVE 12.0 VOLT 1.5 AMP REGULATOR

FEATURES:

- **ISOLATED HERMETIC PACKAGE**
- **SIMILAR to INDUSTRY TYPE LM7912A**

MAXIMUM RATINGS

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

Parameter	Conditions	Typical	Limit	Units
Input Voltage	-	-	-35	Vdc
Storage Temperature Range	-	-	-65 to +150	$^\circ\text{C}$
Lead Temperature	Soldering, 10 seconds	-	+300	$^\circ\text{C}$
Power Dissipation (P_D)	$T_C = +25^\circ\text{C}$	-	15	W
	$T_A = +25^\circ\text{C}$	-	3.0	W
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	4.2	$^\circ\text{C/W}$
Maximum Thermal Resistance Junction to Ambient (θ_{JA})	-	-	42	$^\circ\text{C/W}$
Maximum Junction Temperature (T_J)	$I_O = 5.0\text{ mA to }1.0\text{ A}$	-	150	$^\circ\text{C}$
Ambient Operating Temperature Range (T_A)	-	-	-55 to +125	$^\circ\text{C}$
Input Voltage Range Recommended	-	-	-14.5 to -27	Vdc

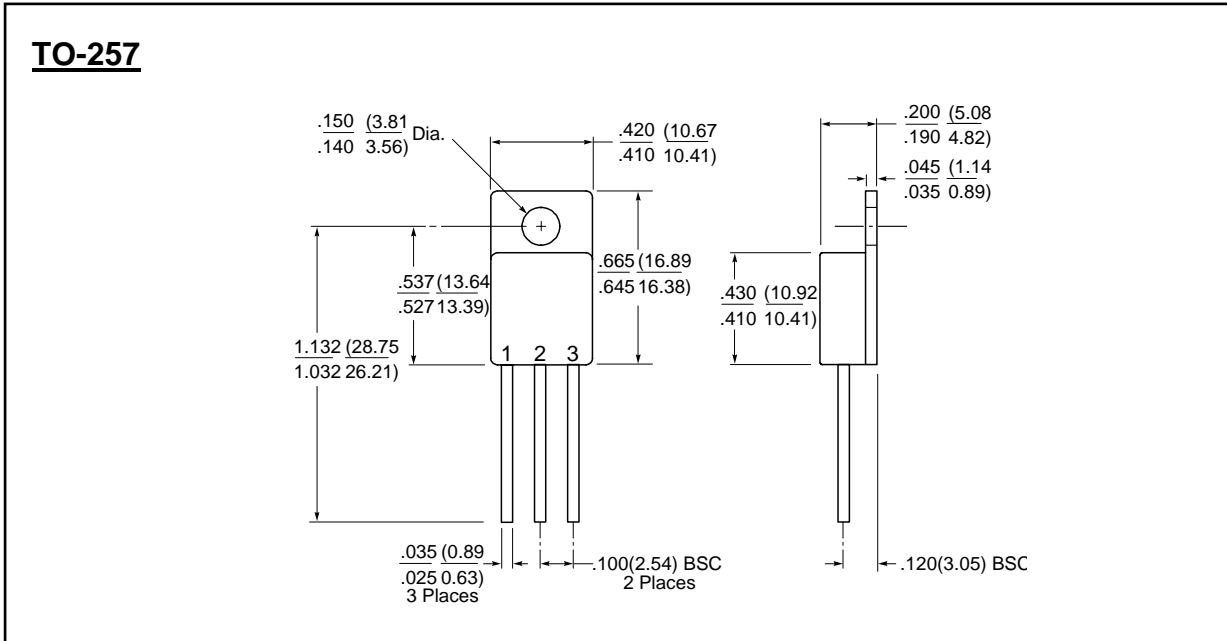
ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Typical	Limit	Units
Output Voltage (V_{OUT})	$T_A = +25^\circ\text{C}$	-12.00	-11.88 -12.12	V V
Line Regulation (V_{RLINE})	$-55^\circ\text{C} \leq T_J \leq +125^\circ\text{C}$ $V_{IN} = -14.5\text{V to }-27\text{V}$	-	20	mV
Load Regulation (V_{RLOAD})	$-55^\circ\text{C} \leq T_J \leq +125^\circ\text{C}$ $I_O = 5.0\text{ mA to }1.5\text{ A}$	-	32	mV
Standby Current Drain (I_{SCD})	-	-	3.5	mA
Standby Current Drain Change w/Line (ΔI_{SCD}) (Line)	$V_{IN} = -14.5\text{ V to }-27\text{ V}$	-	0.8	mA
Standby Current Drain Change w/Load (ΔI_{SCD}) (Load)	$I_O = 5.0\text{ mA to }1000\text{ mA}$	-	0.5	mA
Dropout Voltage (V_{DO})	$I_O = 1.0\text{ A}$	-	1.8	V
Peak Output Current ($I_{O(pk)}$)	$T_A = +25^\circ\text{C}$	-	3.3	A
Short Circuit Current (I_{OS})	$V_{IN} = -35\text{V}$	-	1.2	A
Ripple Rejection ($\Delta V_{IN} / \Delta V_{OUT}$)	$f_o = 120\text{ kHz}$, $V_{IN} = 10\text{V}$ $I_O = 5.0\text{ mA}$	56	-	dB
Output Noise Voltage (N_O)	$T_A = +25^\circ\text{C}$ 10 Hz - 100kHz	-	40	μV_{rms}
Long Term Stability ($\Delta V_{OUT} / \Delta t$)	$T_A = 25^\circ\text{C}$, $t = 1,000$	-	120	mV

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

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REVISION A

MECHANICAL DIMENSIONS



PINOUT TABLE

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

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