## SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 145, REV. – Formerly part number SHD52630

# POSITIVE 15 VOLT VERY LOW DROPOUT VOLTAGE REGULATOR

#### **FEATURES:**

- LOW DROPOUT VOLTAGE
- ISOLATED HERMETIC PACKAGE
- SIMILAR to INDUSTRY TYPE LM2940 15

### **ELECTRICAL CHARACTERISTICS**

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

Parameter	Conditions	Typical	Limit	Units
Output Voltage	$5 \text{ mA} \le I_{\Omega} \le 1\text{A},$	15.00	14.25	VMIN
	$16.75V \le V_{IN} \le 26V$		15.75	VMAX
Line Regulation	$V_{O} + 2V \leq V_{INI} \leq 26V.$	20	150	mVmax
	$l_0 = 5 \text{ mA}$			max
	$50 \text{ mA} \leq 10 \leq 10$	70	240	m\/
	$30 \text{ IIIA} \ge 10 \ge 1\text{ A}$	10	240	MAX
Output Impedance	100 mADC and 20 mA <sub>rms</sub> , $f_{O} =$	100	1000	mΩ
	120 Hz			
Quiescent Current	$V_{O} + 2V \le V_{IN} \le 26V,$	10	20	mA <sub>MAX</sub>
	I <sub>O</sub> = 5 mA			
	$V_{IN} = V_{O} + 5V, I_{O} = 1A$	30	60	mA <sub>MAX</sub>
Output Noise Voltage	10 Hz - 100kHz,	450	1000	μV <sub>rms</sub>
	I <sub>O</sub> = 5 mA			inio i
Ripple Rejection	$f_{O} = 1 \text{ kHz}, 1 \text{ V}_{rms},$	-	42	dB <sub>MIN</sub>
	I <sub>O</sub> = 5 mA			
Long Term Stability	-	60	-	mV/1000 Hr
Dropout Voltage	I <sub>O</sub> = 1A	0.5	1.0	V <sub>MAX</sub>
	I <sub>O</sub> = 100 mA	110	200	mV <sub>MAX</sub>
Short Circuit Current	See Note 1	1.9	1.3	A <sub>MIN</sub>
Maximum Line Transient	R <sub>O</sub> = 100Ω	55	40	V <sub>MIN</sub>
	t ≤ 20 ms			
Reverse Polarity	R <sub>O</sub> = 100Ω	-30	-15	V <sub>MIN</sub>
DC Input Voltage	<b>D</b> 4000	FF	AE	V
Input Voltage	$R_0 = 100\Omega$	-00	-40	<sup>v</sup> MIN
	t ≤ 20 ms		450	<u>^</u>
Storage Temperature Denge	-	-		<u>℃</u>
Storage Temperature Range		-	-05°C ≤ 1 j ≤	-0
			+150°C	V
Operating Temperature Range	-	<u> </u>	-55°C < T . <	<u>،</u>
oporating remperature range		-	-55 C ≥ 1A ≥	C
Maximum Thermal Resistance	+		+1250	°C/W
Junction to Case			Ŭ	0/11

-  $V_{IN}$  =  $V_O$  + 5V,  $I_O$  = 1A,  $C_O$  = 22 $\mu F,$  unless otherwise specified.

1. Output current will decrease with increasing temperature but will not drop below 1A at the maximum specified temperature.

### **MECHANICAL DIMENSIONS**

#### <u>TO-257</u>



### **PINOUT TABLE**

TYPE	PIN 1	PIN 2	PIN 3
TO - 257, 15V Regulator	V <sub>IN</sub>	GROUND	VOUT

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