

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 $T_A = 25^\circ\text{C}$ unless otherwise specified.

Parameter	Conditions	Typical	Limit	Units
Output Voltage	$5\text{ mA} \leq I_O \leq 1\text{ A}$, $16.75\text{ V} \leq V_{IN} \leq 26\text{ V}$	15.00	14.25 15.75	V_{MIN} V_{MAX}
Line Regulation	$V_O + 2\text{ V} \leq V_{IN} \leq 26\text{ V}$, $I_O = 5\text{ mA}$	20	150	mV_{max}
Load Regulation	$50\text{ mA} \leq I_O \leq 1\text{ A}$	70	240	mV_{MAX}
Output Impedance	100 mADC and 20 mA _{rms} , $f_O = 120\text{ Hz}$	100	1000	$\text{m}\Omega$
Quiescent Current	$V_O + 2\text{ V} \leq V_{IN} \leq 26\text{ V}$, $I_O = 5\text{ mA}$	10	20	mA_{MAX}
	$V_{IN} = V_O + 5\text{ V}$, $I_O = 1\text{ A}$	30	60	mA_{MAX}
Output Noise Voltage	10 Hz - 100kHz, $I_O = 5\text{ mA}$	450	1000	μV_{rms}
Ripple Rejection	$f_O = 1\text{ kHz}$, 1 V_{rms} , $I_O = 5\text{ mA}$	-	42	dB_{MIN}
Long Term Stability	-	60	-	$\text{mV}/1000\text{ Hr}$
Dropout Voltage	$I_O = 1\text{ A}$	0.5	1.0	V_{MAX}
	$I_O = 100\text{ mA}$	110	200	mV_{MAX}
Short Circuit Current	See Note 1	1.9	1.3	A_{MIN}
Maximum Line Transient	$R_O = 100\Omega$, $t \leq 20\text{ ms}$	55	40	V_{MIN}
Reverse Polarity DC Input Voltage	$R_O = 100\Omega$	-30	-15	V_{MIN}
Reverse Polarity Transient Input Voltage	$R_O = 100\Omega$, $t \leq 20\text{ ms}$	-55	-45	V_{MIN}
Maximum Junction Temperature	-	-	150	$^\circ\text{C}$
Storage Temperature Range	-	-	$-65^\circ\text{C} \leq T_J \leq +150^\circ\text{C}$	$^\circ\text{C}$
Input Voltage	-	-	26	V
Operating Temperature Range	-	-	$-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	-	-	3	$^\circ\text{C}/\text{W}$

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

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

