

TECHNICAL DATA
DATA SHEET 144, REV. A
FORMERLY PART NUMBER SHD52627

POSITIVE 5 VOLT VERY LOW DROPOUT VOLTAGE REGULATOR

FEATURES:

- **LOW DROPOUT VOLTAGE**
- **ISOLATED HERMETIC PACKAGE**
- **SIMILAR to INDUSTRY TYPE LM2940 - 5**

MAXIMUM RATINGS

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

Parameter	Conditions	Limit	Units
Input Voltage ($\leq 100\text{ms}$)		60	V
Lead Temperature	Soldering, 10 seconds	+300	$^\circ\text{C}$
Power Dissipation (P_D)		Internally Limited	
Maximum Thermal Resistance Junction to Case (θ_{JC})		4.0	$^\circ\text{C}/\text{W}$
Junction Temperature		150	$^\circ\text{C}$
Storage Temperature Range		-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

$V_{in}=10\text{V}$, $I_{out}=1\text{A}$, $C_{out}=22\mu\text{F}$, $T_A = -55\text{C}$ to 125C unless otherwise noted.

Parameter	Conditions	Min	Max	Units
Output voltage	$I_{out} = 5\text{mA}$	4.75	5.25	V
	$I_{out} = 1\text{A}$	4.75	5.25	
	$I_{out} = 5\text{mA}$, $T_j=25\text{C}$	4.85	5.15	
	$I_{out} = 1\text{A}$, $T_j=25\text{C}$	4.85	5.15	
Line regulation	$V_{in} = 7\text{V}$ to 26V , $I_{out}=5\text{mA}$	-50	50	mV
	$V_{in} = 7\text{V}$ to 26V , $I_{out}=5\text{mA}$, $T_j=25\text{C}$	-40	40	
Load regulation	$I_{out} = 50\text{mA}$ to 1A	-100	100	mV
	$I_{out} = 50\text{mA}$ to 1A , $T_j=25\text{C}$	-50	50	
Quiescent current	$I_{out}=5\text{mA}$	0	20	mA
	$I_{out}=1\text{A}$	0	100	
	$I_{out}=5\text{mA}$, $T_j=25\text{C}$	0	15	
	$I_{out}=1\text{A}$, $T_j=25\text{C}$	0	50	
Output noise voltage ¹	$I_{out}=5\text{mA}$, 10Hz to 100kHz	0	700	μVrms
Ripple rejection ¹	1Vrms, 1kHz, $I_{out}=5\text{mA}$	50		dB
	1Vrms, 1kHz, $I_{out}=5\text{mA}$, $T_j=25\text{C}$	60		
Dropout voltage	$I_{out}=1\text{A}$	0	1000	mV
	$I_{out}=100\text{mA}$	0	300	
	$I_{out}=1\text{A}$, $T_j=25\text{C}$	0	700	
	$I_{out}=100\text{mA}$, $T_j=25\text{C}$	0	200	
Short-circuit current	$V_{in}=10\text{V}$	1.3		A
	$V_{in}=10\text{V}$, $T_j=25\text{C}$	1.5		

¹ not tested in production

