TECHNICAL DATA
DATA SHEET 219, REV A
Formerly part number SHD50106

+/- DUAL FIXED 12.0 VOLT 1.5 AMP VOLTAGE REGULATOR

FEATURES:

- **ISOLATED HERMETIC PACKAGE**
- **SIMILAR to INDUSTRY TYPE 7812 / 7912**

MAXIMUM RATINGS +12.0 Volt

All ratings are at T_A = 25°C unless otherwise specified.

Parameter	Conditions		Max.	Units
Input Voltage	-	-	35	Vdc
Storage Temperature Range	-	-	-65 to +150	°C
Lead Temperature	Soldering, 10 seconds	-	+300	°C
Power Dissipation (P_D)	T_C = +25°C T_A = +25°C	- -	17.5 3.0	W W
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	4.2	°C/W
Maximum Thermal Resistance Junction to Ambient (θ_{JA})	-	-	42	°C/W
Junction Operating Temperature Range (T_j)	-	-	-55 to +150	°C

ELECTRICAL CHARACTERISTICS +12.0 Volt

All ratings are at T_A = 25°C unless otherwise specified.

Parameter	Conditions	Min.	Max.	Units
Output Voltage (V_{OUT})		11.75	12.25	V
Line Regulation (V_{RLINE})	-55°C ≤ T_A ≤ +125°C V_{IN} = 14.5V to 27V	 -	18	mV
Load Regulation (V_{RLOAD})	I_O = 10mA to 1.5A	-	32	mV
Load Regulation (V_{RLOAD})	-55°C ≤ T_A ≤ +125°C I_O = 10mA to 1.0A	-	32	mV
Standby Current Drain (I_{SCD})	-	-	6.0	mA
Standby Current Drain Change w/Line (ΔI_{SCD}) (Line)	V_{IN} = 14.5V to 27V	-	0.8	mA
Standby Current Drain Change w/Load (ΔI_{SCD}) (Load)	I_O = 10mA to 1.5A	-	0.5	mA
Dropout Voltage (V_{DO})	ΔV_{OUT} = 100mV, I_O = 1.0A	-	2.5	V
Peak Output Current ($I_{O(pk)}$)		1.5	3.3	A
Short Circuit Current (I_{OS})	V_{IN} = 35V	-	1.2	A
Ripple Rejection (ΔV_{IN} / ΔV_{OUT})*	f = 120 kHz, ΔV_{IN} = 10V	55	-	dB
Output Noise Voltage (N_O)*	T_A = +25°C f = 10 Hz - 100kHz	-	40	$\mu V/Vo$
Long Term Stability (ΔV_{OUT} / Δt)*	T_A = 25°C, t = 1,000hrs.	-	120	mV

*not tested in production

SENSITRON
TECHNICAL DATA
DATASHEET 219, REVISION A

MAXIMUM RATINGS -12.0 Volt

All ratings are at T_A = 25°C unless otherwise specified.

Parameter	Conditions		Max.	Units
Input Voltage	-	-	-35	Vdc
Storage Temperature Range	-	-	-65 to +150	°C
Lead Temperature	Soldering, 10 seconds	-	+300	°C
Power Dissipation (P_D)	T_C = +25°C T_A = +25°C	- -	17.5 3.0	W W
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	4.2	°C/W
Maximum Thermal Resistance Junction to Ambient (θ_{JA})	-	-	42	°C/W
Junction Operating Temperature Range (T_j)	-	-	-55 to +150	°C

ELECTRICAL CHARACTERISTICS -12.0 Volt

All ratings are at T_A = 25°C unless otherwise specified.

Parameter	Conditions	Min.	Max.	Units
Output Voltage (V_{OUT})	T_A = +25°C	-11.50	-12.50	V
Line Regulation (V_{RLINE})	-55°C ≤ T_A ≤ +125°C V_{IN} = -14.5V to -27V	-	20	mV
Load Regulation (V_{RLOAD})	I_O = 10mA to 1.5A	-	150	mV
Load Regulation (V_{RLOAD})	-55°C ≤ T_A ≤ +125°C I_O = 10mA to 1.0A	-	150	mV
Standby Current Drain (I_{SCD})	-	-	8.0	mA
Standby Current Drain Change w/Line (ΔI_{SCD}) (Line)	V_{IN} = -14.5V to -27V	-	0.8	mA
Standby Current Drain Change w/Load (ΔI_{SCD}) (Load)	I_O = 10mA to 1.5A	-	0.5	mA
Dropout Voltage (V_{DO})	ΔV_{OUT} = 100mV, I_O = 1.0A	-	1.8	V
Peak Output Current ($I_{O(pk)}$)	T_A = +25°C, I_O = 5mA to 1A	1.5	3.3	A
Short Circuit Current (I_{OS})	V_{IN} = -35V	-	1.2	A
Ripple Rejection (ΔV_{IN} / ΔV_{OUT})*	f = 120 kHz, ΔV_{IN} = 10V	56	-	dB
Output Noise Voltage (N_O)*	T_A = +25°C f = 10 Hz - 100kHz	-	150	μV
Long Term Stability (ΔV_{OUT} / Δt)*	T_A = 25°C, t = 1,000hrs.	-	120	mV

*not tested in production

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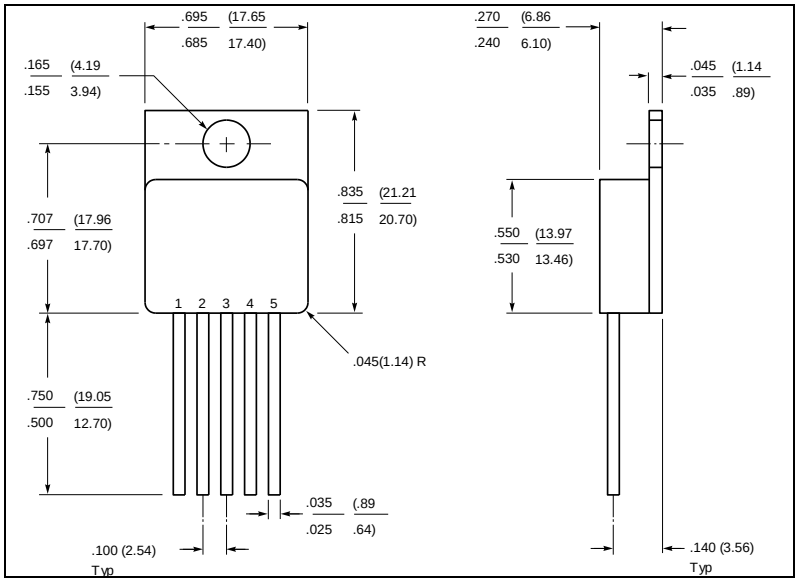
MECHANICAL DIMENSIONS: In Inches/ mm



MO-078

PINOUT TABLE

TYPE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5
5-Voltage Regulator MO-078 Package	+ Input	+ Output	Common	- Input	- Output