

**TECHNICAL DATA**  
**DATA SHEET 305, REV. C**

**NEGATIVE ADJUSTABLE**  
**1.5 AMP REGULATOR**

**FEATURES:**

- Isolated hermetic package (TO-257)
- Hot solder dipped
- Similar to industry type LM137
- Add Suffix "S" for S-100 Screening per MIL-PRF-38535
- Add Suffix "SA" for S-100 Screening per MIL-PRF-38535 and Group A per Method 5005 of MIL-STD-883

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Conditions	MIN	MAX	Units
Output Current ( $I_{OUT}$ )	-	-	1.5	A
Input to Output Voltage Differential	-	-0.3	40	V dc
Storage Temperature Range	-	-	-65 to +150	°C
Junction Temperature	-	-	+150	°C
Power Dissipation ( $P_D$ )	-	-	Internally Limited	
Maximum Thermal Resistance Junction to Case ( $\theta_{JC}$ )	-	-	4.2	°C/W
Ambient Operating Temperature Range ( $T_A$ )	Recommended Conditions	-	-55 to +125	°C

Note: Lead soldering temperature shall comply with MIL-STD-883 Test Method 2036.1 requirements.

**ELECTRICAL CHARACTERISTICS**

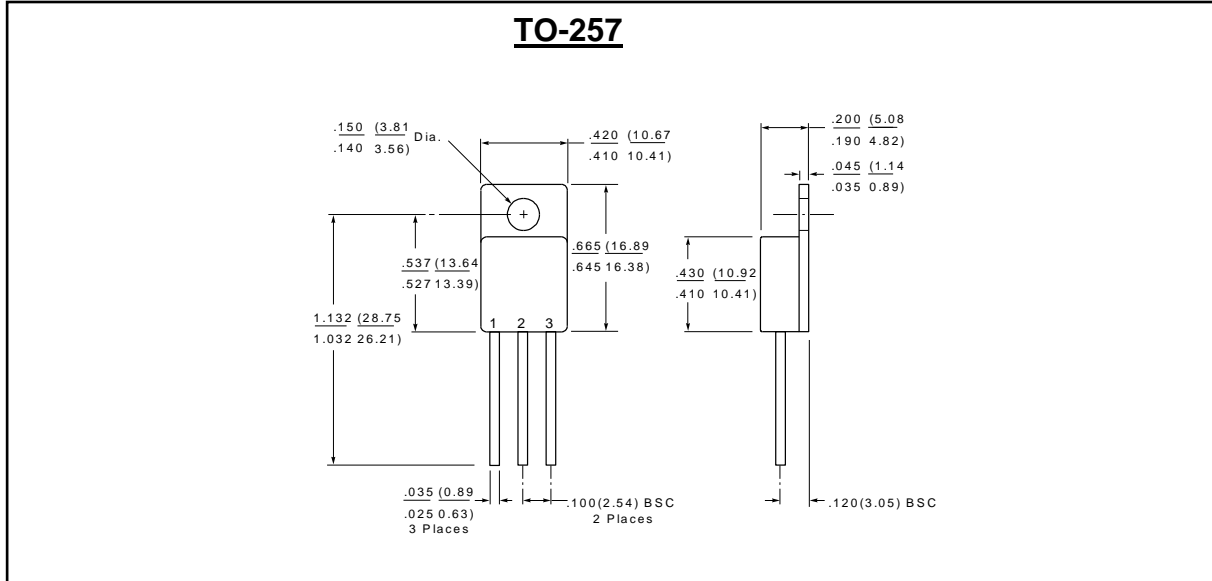
Unless otherwise specified,  $T_J = 25^\circ\text{C}$ ,  $V_{IN} = -4.25\text{V}$ ,  $I_{OUT} = 8.0\text{mA}$

Parameter	Conditions	Min	Typ.	Limit	Units
Reference Voltage	$V_{IN} = -42\text{V}$	-1.275	-	-1.225	V
	$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-1.275	-	-1.225	V
	$V_{IN} = -41.3\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-1.30	-	-1.20	V
		-1.30	-	-1.20	V
Line Regulation	$-42\text{V} \leq V_{IN} \leq -4.25\text{V}$	-9.0	-	9.0	mV
	$-41.3\text{V} \leq V_{IN} \leq -4.25\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-23	-	23	mV
Load Regulation	$8\text{mA} \leq I_{OUT} \leq 1.5\text{A}$ , $V_{IN} = -6.25\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-50	-	50	mV
Adjust Pin Current	$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-	50	100	$\mu\text{A}$
Adjust Pin Current Change	$8\text{mA} \leq I_{OUT} \leq 1.5\text{A}$ , $V_{IN} = -6.25\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-5.0	-	5.0	$\mu\text{A}$
	$-41.3\text{V} \leq V_{IN} \leq -4.25\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-5.0	-	5.0	$\mu\text{A}$
Minimum Load Current	$V_{IN} = -41.3\text{V}$ , $T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-	-	5.0	mA
Current Limit	$V_{IN} = -5\text{V}$	-3.5	-	-1.5	A
	$V_{IN} = -40\text{V}$	-1.2	-	-0.24	A
Temperature Stability	$T_J = -55^\circ\text{C}$ to $125^\circ\text{C}$	-	1.0	-	%
Ripple Rejection Ratio	$V_{OUT} = -10\text{V}$ , $f = 120\text{Hz}$ , $C_{ADJ} = 0\mu\text{F}$	-	65	-	dB
	$V_{OUT} = -10\text{V}$ , $f = 120\text{Hz}$ , $C_{ADJ} = 10\mu\text{F}$	-	80	-	dB
Thermal Regulation	20 ms pulse	-	0.03	0.07	%/W
Long Term Stability <sup>1</sup>	$T_J = +125^\circ\text{C}$ , $t = 1,000\text{hrs}$	-	0.3	1.0	%

<sup>1</sup>Guaranteed but not tested

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**MECHANICAL DIMENSIONS in inches & mm**



**PINOUT TABLE**

TYPE	PIN 1	PIN 2	PIN 3
TO – 257, 1.5A Regulator	ADJUST	V <sub>IN</sub>	V <sub>OUT</sub>

**PART ORDERING INFORMATION:**

Part Number	Description
SHD526040S	Includes S-100 screening per MIL-PRF-38535
SHD526040SA	Includes S-100 screening per MIL-PRF-38535 and Group A testing per Method 5005 of MIL-STD-883

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