

PRODUCT CATALOG

POSITIVE REGULATOR, ADJUSTABLE

SDP150 JAA
SDP150 JAB
SDP150 JDA

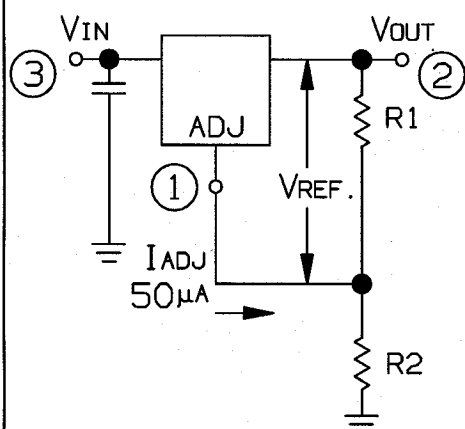
FEATURES

- RUGGED PACKAGE
- HI-REL CONSTRUCTION
- CERAMIC EYELETS: JAA, JAB
- LEAD BENDING OPTIONS
- COPPER CORED 52 ALLOY PINS
- LOW IR LOSSES
- LOW THERMAL RESISTANCE
- OPTIONAL MIL-STD-883 SCREENING

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL		UNITS
TOTAL POWER DISSIPATION	PD	30	W
INPUT TO OUTPUT VOLTAGE DIFFERENTIAL		35	V
OPERATING JUNCTION TEMPERATURE	TJ	-55 TO +150	°C
STORAGE TEMPERATURE	stg	-65 TO +150	°C
MAXIMUM LEAD TEMPERATURE	TL	300	°C
THERMAL RESISTANCE	RthJc	1.5	°C/W

SCHEMATIC



$$V_O = V_{REF} \left(1 + \frac{R_2}{R_1} \right) + I_{ADJ} R_2$$

NOTES:

- DENOTES THE SPECIFICATIONS WHICH APPLY OVER THE FULL OPERATING TEMPERATURE RANGE.
- 1) UNLESS OTHERWISE SPECIFIED, THESE SPECIFICATIONS APPLY FOR VIN-VOUT=5V AND IO=1.5A.
- 2) REGULATION IS MEASURED AT CONSTANT JUNCTION TEMPERATURE USING PULSE TESTING WITH A LOW DUTY CYCLE.

ELECTRICAL CHARACTERISTICS Tc = 25°C (UNLESS OTHERWISE SPECIFIED)

PARAMETER	SYMBOL	TEST CONDITIONS	NOTE	MIN.	TYP.	MAX.	UNITS
REFERENCE VOLTAGE	VREF	3V ≤ (VIN-VOUT) ≤ 35V 10mA ≤ IO ≤ 3A, P ≤ 30W	■	1.2	-	1.3	V
LINE REGULATION	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	3V ≤ (VIN-VOUT) ≤ 35V	■	-	-	.01 .05	%/V %/V
LOAD REGULATION	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	10mA ≤ IO ≤ 3A TA = 25°C VOUT ≤ 5V	-	-	-	15	mV
		VOUT ≥ 5V	-	-	-	0.3	%
THERMAL REGULATION	-	VOUT ≤ 5V	■	-	-	50	mV
		VOUT ≥ 5V	■	-	-	1	%
ADJUST PIN CURRENT	IADJ	TA = 25°C 20msec PULSE	-	-	-	0.01	%/W
RIPPLE REJECTION	RREJ	VOUT = 10V f = 120HZ CADJ = 0 CADJ = 10µf	■ ■	- 66	65 -	- -	dB dB
ADJUST PIN CURRENT CHANGE	ΔIADJ	10mA ≤ IL ≤ 3A 3V ≤ (VIN-VOUT) ≤ 35V	■	-	-	5	µA
MINIMUM LOAD CURRENT	Iomin	(VIN-VOUT) = 35V	■	-	-	5	mA
CURRENT LIMIT	ICL	VIN-VOUT ≤ 10V (VIN-VOUT) ≤ 30V	■ ■	3.0 0.3	- -	- -	A A
TEMPERATURE STABILITY	$\frac{\Delta V_{OUT}}{\Delta TEMP}$	-55°C ≤ TJ ≤ +150°C	■	-	1	-	%
LONG TERM STABILITY	$\frac{\Delta V_{OUT}}{\Delta TIME}$	TA = 125°C	-	-	-	1	%
RMS OUTPUT NOISE (% OF VOUT)	en	TA = 25°C 10HZ ≤ f ≤ 10KHZ	-	-	.001	-	%

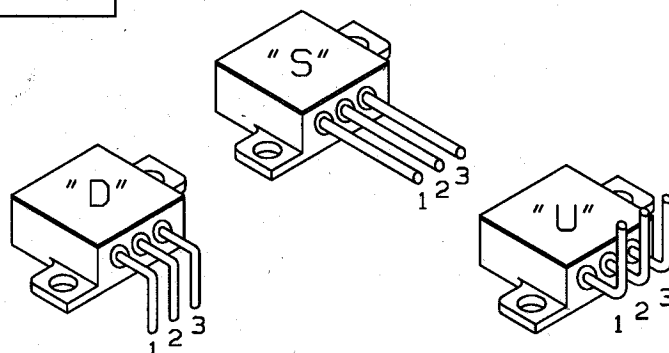
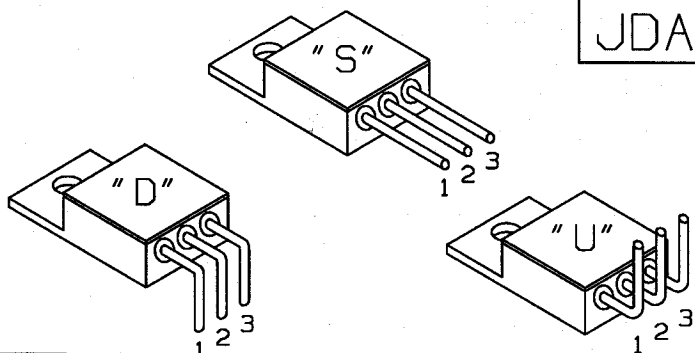
REV. 10/93

STANDARD BEND CONFIGURATIONS

JAA
JDA

JAB

STANDARD BEND CONFIGURATIONS



(CUSTOM BEND OPTIONS AVAILABLE)

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