

POSITIVE REGULATOR, FIXED

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	SYMBOL		UNITS
TOTAL POWER DISSIPATION	PD	30	W
INPUT TO OUTPUT VOLTAGE DIFFERENTIAL (V _O =GND)		35	V
OPERATING JUNCTION TEMPERATURE	T _J	-55 TO +175	°C
STORAGE TEMPERATURE	stg	-65 TO +150	°C
MAXIMUM LEAD TEMPERATURE	TL	300	°C
THERMAL RESISTANCE	R _{thJc}	3.0	°C/W

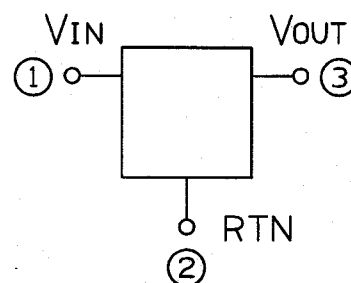
SDP7805 JAA
SDP7805 JAB
SDP7805 JDA

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

ELECTRICAL CHARACTERISTICS (NOTE 1)						
PARAMETER	SYMBOL	TEST CONDITIONS (1)	MIN.	TYP.	MAX.	UNITS
OUTPUT VOLTAGE	V _O	T _J =25°C	4.80	5.00	5.20	V
LINE REGULATION (1)	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	V _{IN} =7.5V to 20V, T _J =25°C V _{IN} =8V to 12V, T _J =25°C	-	5 2	50 25	mV mV
LOAD REGULATION (1)	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	I _O =5mA to 1.5A, T _J =25°C I _O =250mA to 750mA, T _J =25°C	-	25 8	100 25	mV mV
TOTAL OUTPUT VOLTAGE TOLERANCE	V _{OT}	V _{IN} =8V to 20V I _O =5mA to 1.0A, P _S ≤20W	4.65	5.00	5.35	V
QUIESCENT CURRENT	I _Q	OVER TEMPERATURE RANGE	-	-	7	mA
		T _J =25°C	-	4	6	mA
QUIESCENT CURRENT CHANGE	I _{ADJ}	WITH LINE: V _{IN} =8V to 25V	-	-	0.8	mA
		WITH LOAD: I _O =5mA to 1.0A	-	-	0.5	mA
DROPOUT VOLTAGE		ΔV_{O} =100mV, T _J =25°C I _O =1.0A	-	2	2.5	V
PEAK OUTPUT CURRENT	I _{OPK}	T _J =25°C	1.3	2.0	3.3	A
SHORT CIRCUIT CURRENT		V _{IN} =35V, T _J =25°C	-	-	1.2	A
RIPPLE REJECTION	RREJ	ΔV_{IN} =10V, f=120Hz, T _J =25°C	68	-	-	dB
OUTPUT NOISE VOLTAGE (RMS)	e _n	f=10Hz to 100KHz (NOTE 3)	-	-	40	μV/V
LONG TERM STABILITY	$\frac{\Delta V_{OUT}}{\Delta TIME}$	1000hrs. at T _J =125°C	-	20	-	mV
THERMAL SHUTDOWN		I _O =5mA	-	175	-	°C

SCHEMATIC



NOTES:

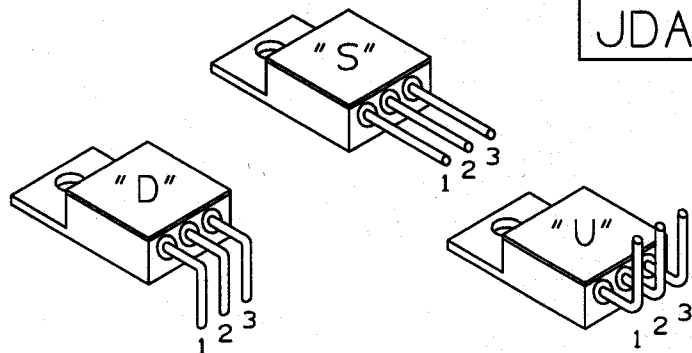
- 1) ALL REGULATION TESTS ARE MEASURED AT CONSTANT JUNCTION TEMPERATURE USING PULSE TESTING WITH A LOW DUTY CYCLE.
- 2) UNLESS OTHERWISE SPECIFIED, THESE SPECIFICATIONS APPLY FOR V_{IN}=10V, I_O=500mA, C_{IN}=0.33μF, C_{OUT}=0.1μF.
- 3) THIS TEST IS GUARANTEED BUT IS NOT TESTED IN PRODUCTION.

STANDARD BEND CONFIGURATIONS

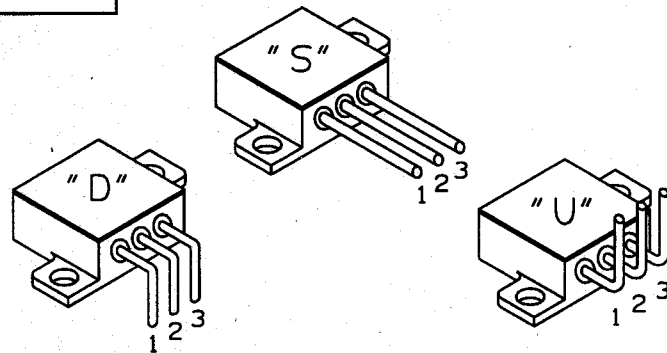
JAA
JDA

JAB

STANDARD BEND CONFIGURATIONS



(CUSTOM BEND OPTIONS AVAILABLE)



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