

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	SYMBOL		UNITS
TOTAL POWER DISSIPATION	PD	30	W
INPUT TO OUTPUT VOLTAGE DIFFERENTIAL (VO=GND)		35	V
OPERATING JUNCTION TEMPERATURE	TJ	-55 TO +175	°C
STORAGE TEMPERATURE	stg	-65 TO +150	°C
MAXIMUM LEAD TEMPERATURE	TL	300	°C
THERMAL RESISTANCE	RthJc	3.0	°C/W

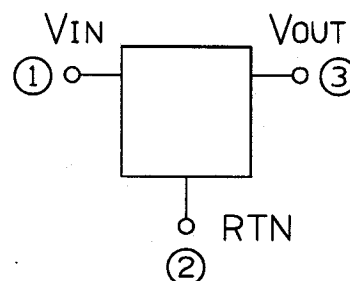
SDP7805A JAA
SDP7805A JAB
SDP7805A JDA

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	VO	TJ=25°C	4.92	5.00	5.08	V
LINE REGULATION (1)	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	VIN=7.5V to 20V, TJ=25°C VIN=8V to 12V, TJ=25°C	-	5 2	25 12	mV mV
LOAD REGULATION (1)	$\frac{\Delta V_{OUT}}{\Delta I_{OUT}}$	Io=5mA to 1.5A, TJ=25°C Io=250mA to 750mA, TJ=25°C	-	15 5	50 25	mV mV
TOTAL OUTPUT VOLTAGE TOLERANCE	VOT	VIN=8V to 20V Io=5mA to 1.0A, P≤20W	4.85	5.00	5.15	V
QUIESCENT CURRENT	IQ	OVER TEMPERATURE RANGE	-	-	7	mA
		TJ=25°C	-	4	6	mA
QUIESCENT CURRENT CHANGE	IADJ	WITH LINE: VIN=8V to 25V	-	-	0.8	mA
		WITH LOAD: Io=5mA to 1.0A	-	-	0.5	mA
DROPOUT VOLTAGE		$\Delta V_o=100\text{mV}$, TJ=25°C Io=1.0A	-	2	2.5	V
PEAK OUTPUT CURRENT	IOPK	TJ=25°C	1.3	2.0	3.3	A
SHORT CIRCUIT CURRENT		VIN=35V, TJ=25°C	-	-	1.2	A
RIPPLE REJECTION	RREJ	$\Delta V_{IN}=10\text{V}$, f=120Hz, TJ=25°C	68	-	-	dB
OUTPUT NOISE VOLTAGE (RMS)	en	f=10Hz to 100KHz (NOTE 3)	-	-	40	μV/V
LONG TERM STABILITY	$\frac{\Delta V_{OUT}}{\Delta \text{TIME}}$	1000hrs. at TJ=125°C	-	20	-	mV
THERMAL SHUTDOWN		Io=5mA	-	175	-	°C

SCHEMATIC

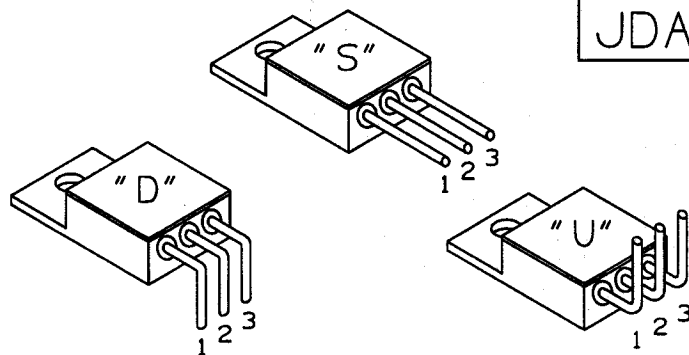


NOTES:

- 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 VIN=10V, Io=500mA, CIN=0.33μF, COUT=0.1μF.
- 3) THIS TEST IS GUARANTEED BUT IS NOT TESTED IN PRODUCTION.

STANDARD BEND CONFIGURATIONS

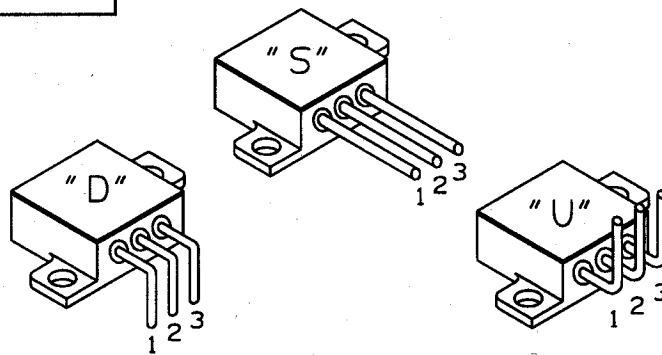
JAA
JDA



(CUSTOM BEND OPTIONS AVAILABLE)

JAB

STANDARD BEND CONFIGURATIONS



(CUSTOM BEND OPTIONS AVAILABLE)