

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	SYMBOL		UNITS
TOTAL POWER DISSIPATION	PD	20	W
INPUT TO OUTPUT VOLTAGE DIFFERENTIAL		40	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	3	°C/W

SDP10209 GAT
SDP10209 GAR

FEATURES

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

ELECTRICAL CHARACTERISTICS:

PARAMETER	+15V TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS	-15V TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
OUTPUT VOLTAGE	Tj=25°C, VIN=23V, Io=1A	14.70	15	15.30	V	Tj=25°C, VIN=-20V, Io=5mA	-15.30	-15	-14.70	V
	Tj=25°C, 17.5V ≤ VIN ≤ 30V, 5mA ≤ IO ≤ 1A, PD ≤ 15W	14.7		15.3	V	Tj=25°C, -35V ≤ VIN ≤ -17V, 5mA ≤ IO ≤ 1.0A, P ≤ PD	-15.30		-14.70	V
	OVER TEMP, Tmin ≤ Tj ≤ Tmax	14.6		15.4	V	OVER TEMP, Tmin ≤ Tj ≤ Tmax	-15.45		-14.55	V
LINE REGULATION	Tj=25°C, 17.5V ≤ VIN ≤ 30V, Io=500mA			75	mV	Tj=25°C, -35V ≤ VIN ≤ -17V, Io=5mA		10	75	mV
	OVER TEMP, Tmin ≤ Tj ≤ Tmax		20	100	mV					
LOAD REGULATION	Tj=25°C, VIN=23V, 5mA ≤ Io ≤ Tmax		30	100	mV	Tj=25°C, VIN=-20V, 5mA ≤ Io ≤ 1.5A		50	100	mV
	VIN=23V, 5mA ≤ Io ≤ 1A, OVER TEMP, Tmin ≤ Tj ≤ Tmax			75	mV					
RIPPLE REJECTION	Tj=25°C, 18.5V ≤ VIN ≤ 28.5V, Io=500mA	60			dB	Tj=25°C, -28V ≤ VIN ≤ -18V, Io=500mA	56			dB
OUTPUT NOISE VOLTAGE	Tj=25°C, VIN=23V, Io=5mA		90		μV	f=10Hz TO 100KHz, CL=1μf Tj=25°C, VIN=-17V, Io=500mA		250		μV
DROPOUT VOLTAGE	Tj=25°C, Io=1A		2		V	Tj=25°C, Io=1A		1.1		V
SHORT CIRCUIT CURRENT	Tj=25°C, VIN=23V		1.2		A	Tj=25°C, VIN=-20V		1.1		A
PEAK OUTPUT CURRENT	Tj=25°C		2.4		A	Tj=25°C		2.0		A
AVG. TEMP. VAR. OF VOUT	0°C ≤ Tj ≤ Tmax, VIN=23V, Io=5mA		-1.0		mV/°C	0°C ≤ Tj ≤ Tmax, VIN=-20V, Io=5mA		-1.0		mV/°C
LONG TERM STABILITY	1000 HR. @ Tj=125°C, VIN=23V, Io=5mA		60		mV	1000 HR. @ Tj=125°C, VIN=-20V, Io=5mA		60		mV
QUIESCENT CURRENT	Tj=25°C, VIN=23V, Io=1A		4.5	6	mA	Tj=25°C, VIN=-20V, Io=500mA		3	2	mA
	OVER TEMP, Tmin ≤ Tj ≤ Tmax			6.5	mA				4	mA
QUIESCENT CURRENT CHANGE	Tj=25°C, VIN=23V, 5mA ≤ Io ≤ 1A			.4	mA	Tj=25°C, VIN=-20V, 5mA ≤ Io ≤ 1.5A			.4	mA
	OVER TEMP, Tmin ≤ Tj ≤ Tmax			.5	mA					
	Tj=25°C, VIN=17.5V ≤ VIN ≤ 30V, Io=500mA			.6	mA				.4	mA
	OVER TEMP, Tmin ≤ Tj ≤ Tmax			.8	mA	Tj=25°C, -35V ≤ VIN ≤ -17V, Io=500mA				

NOTE: ALL CHARACTERISTICS EXCEPT NOISE VOLTAGE AND RIPPLE ARE MEASURED USING PULSE TECHNIQUES (tw ≤ 10ms, DUTY CYCLE ≤ 5%).

