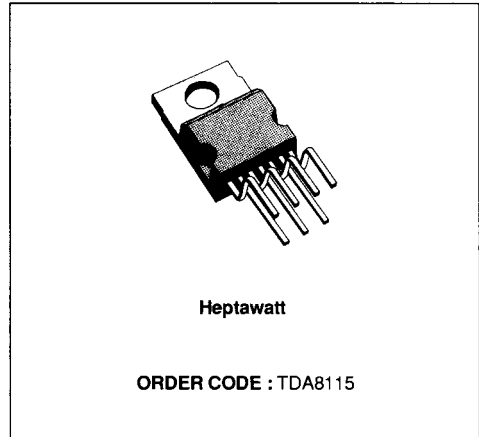


DUAL MOTOR DRIVER

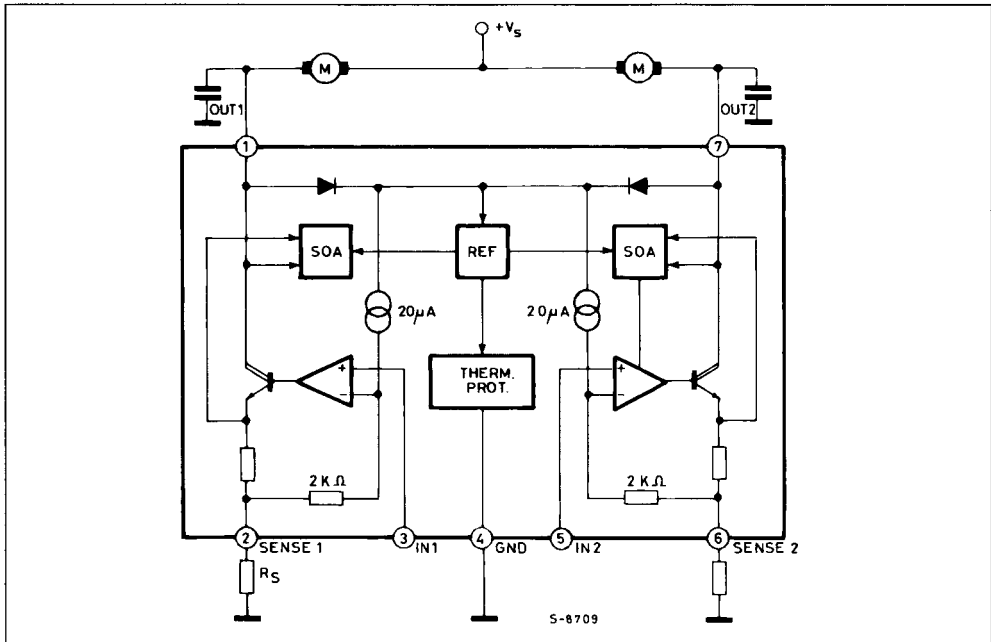
- HIGH OUTPUT CURRENT, EACH CHANNEL UP TO 1 A
- WIDE SUPPLY VOLTAGE RANGE, 4 V UP TO 28 V
- SHORT CIRCUIT PROTECTION
- SAFE OPERATING AREA CURRENT LIMITING
- TEMPERATURE SHUT DOWN WITH HYS-TERESIS
- HIGH INPUT IMPEDANCE
- GROUND COMPATIBLE INPUT



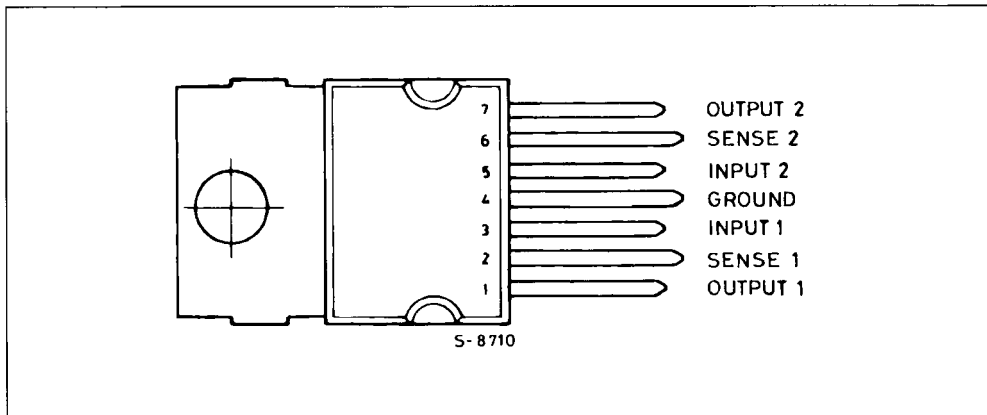
DESCRIPTION

The TDA8115 is a monolithic integrated circuit which realizes two independent programmable current sources. The device is well suited for motor driving applications such as reel motors in video recorders. A wide supply voltage range permits battery operation.

BLOCK DIAGRAM



CONNECTION DIAGRAM (top view)



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	28	V
I_O	Output Current (each channel)	Internally Limited	
P_{tot}	Power Dissipation	internally Limited	
T_{op}	Operation Junction Temperature	- 40 to + 150	°C
T_{stg}	Storage Temperature	- 40 to + 150	°C

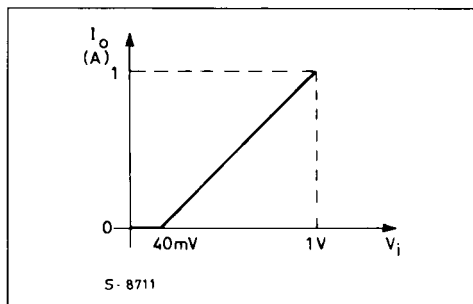
THERMAL DATA

$R_{th\ j-case}$	Thermal Resistance Junction–case	Max	3	°C/W
------------------	----------------------------------	-----	---	------

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ °C}$, unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_S	Supply Voltage		4		23	V
I_Q	Quiescent Current			2	5	mA
I_O	Output Current Range				1	A
V_{IR}	Input Voltage Range		0		$V_S - 3$	V
V_{OS}	Positive Input Offset for Current Starting Point		50	60	80	mV
	Thermal Shut Down			150		°C
	Hysteresis			20		°C
I_L	Output Current Limit $V_S = 10\text{ V}$ $V_S = 20\text{ V}$			1.4		A
				0.4		A
I_b	Input Bias Current				1	μA
V_{sat}	Saturation Voltage	$I_{OUT} = 0.9\text{ A}$		1.4	2	V
R_B	Bond Resistance			60		mΩ

Figure 1 : Transconductance Characteristic.



$$\text{with } I_o = \frac{V_{IN} - 40\text{mV}}{(R_S + 60\text{m}\Omega)}$$

Figure 2 : Max Output Current vs. Supply Voltage (SOA).

