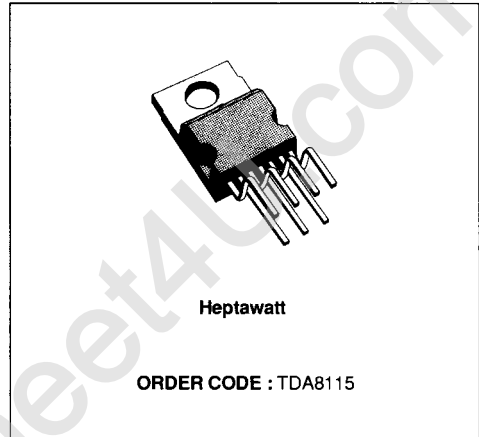




**DUAL MOTOR DRIVER**

- 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



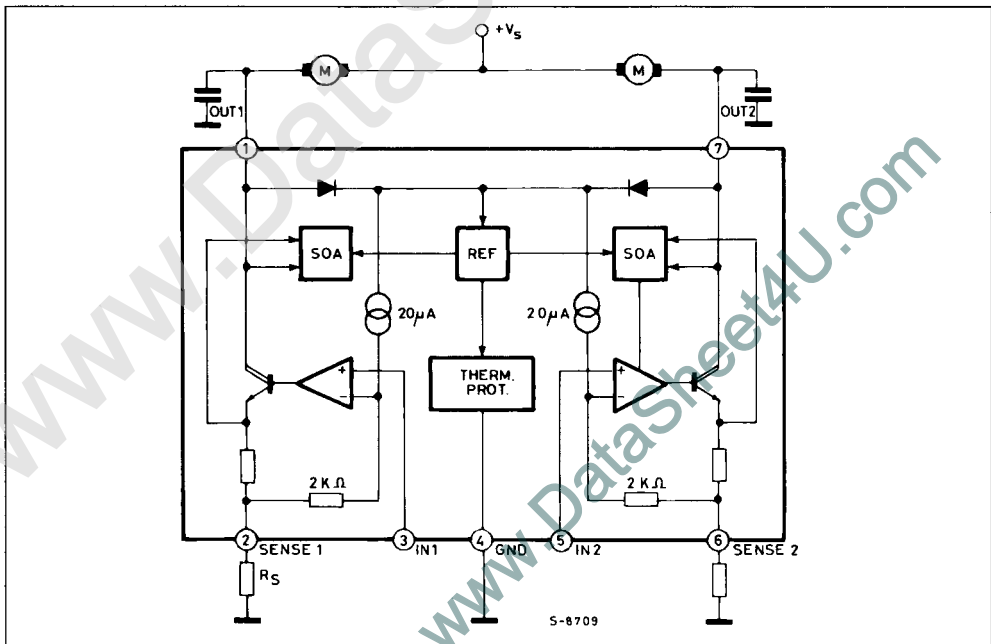
Heptawatt

ORDER CODE : TDA8115

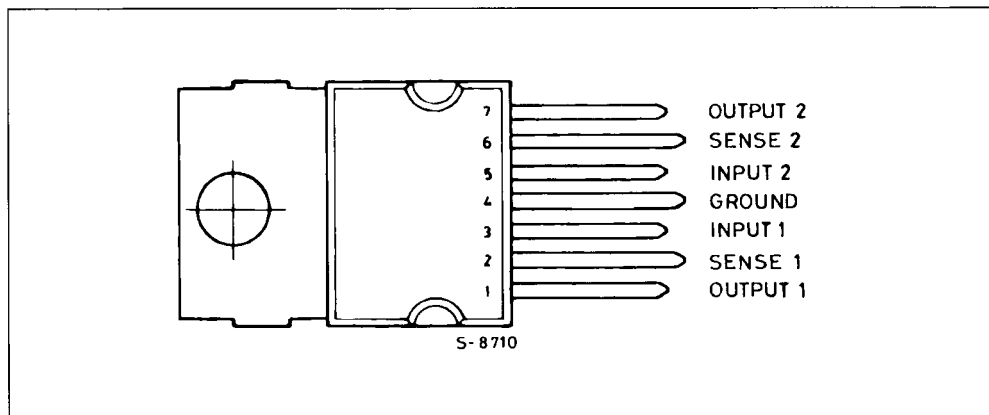
**DESCRIPTION**

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

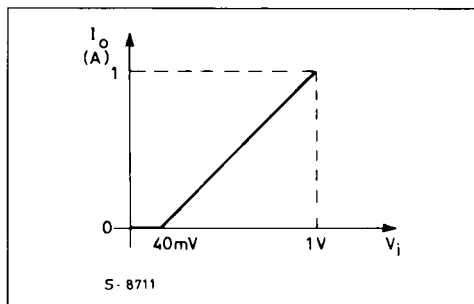
## THERMAL DATA

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

