

PNP general purpose double transistor

PUMT1

FEATURES

- Low current (max. 100 mA)
- Low voltage (max. 40 V)
- Reduces number of components and boardspace.

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

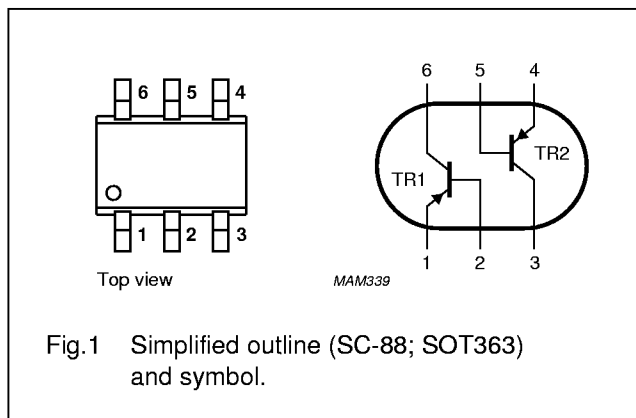
Two independently operating PNP transistors in an SC-88; SOT363 plastic package. NPN complement: PUMX1.

MARKING

TYPE NUMBER	MARKING CODE
PUMT1	FtF

PINNING

PIN	DESCRIPTION
1, 4	emitter TR1; TR2
2, 5	base TR1; TR2
3, 6	collector TR2; TR1



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per transistor					
V_{CBO}	collector-base voltage	open emitter	–	–50	V
V_{CEO}	collector-emitter voltage	open base	–	–40	V
V_{EBO}	emitter-base voltage	open collector	–	–5	V
I_C	collector current (DC)		–	–100	mA
I_{CM}	peak collector current		–	–200	mA
I_{BM}	peak base current		–	–200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$	–	200	mW
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C
Per device					
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$; note 1	–	300	mW

Note

1. Device mounted on an FR4 printed-circuit board.

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
Per device				
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	416	K/W

Note

1. Device mounted on an FR4 printed-circuit board.

CHARACTERISTICS

$T_{amb} = 25\text{ °C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per transistor					
I_{CBO}	collector cut-off current	$I_E = 0; V_{CB} = -30\text{ V}$	–	–100	nA
		$I_E = 0; V_{CB} = -30\text{ V}; T_j = 150\text{ °C}$	–	–10	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -4\text{ V}$	–	–100	nA
h_{FE}	DC current gain	$I_C = -1\text{ mA}; V_{CE} = -6\text{ V}$	120	–	
V_{CEsat}	collector-emitter saturation voltage	$I_C = -50\text{ mA}; I_B = -5\text{ mA}; \text{note 1}$	–	–200	mV
C_c	collector capacitance	$I_E = I_E = 0; V_{CB} = -12\text{ V}; f = 1\text{ MHz}$	–	2.2	pF
f_T	transition frequency	$I_C = -2\text{ mA}; V_{CE} = -12\text{ V}; f = 100\text{ MHz}$	100	–	MHz

Note

1. Pulse test: $t_p \leq 300\text{ }\mu\text{s}$; $\delta \leq 0.02$.

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PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT363

Technical drawing of the PUMT1 package showing top, side, and detail views with dimensions A, A1, bp, c, D, E, e, e1, HE, Lp, Q, v, w, y.

0 1 2 mm
scale

DIMENSIONS (mm are the original dimensions)

UNIT	A	A1 max	bp	c	D	E	e	e1	HE	Lp	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT363			SC-88			97-02-28