

**NPN GENERAL PURPOSE  
DUAL TRANSISTOR**

**DESCRIPTION**

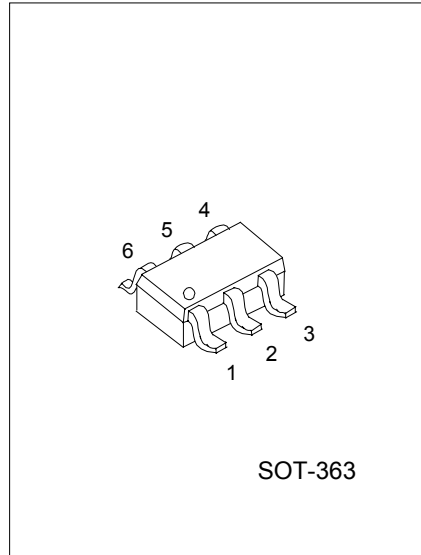
Two independently operating NPN transistors.

**FEATURES**

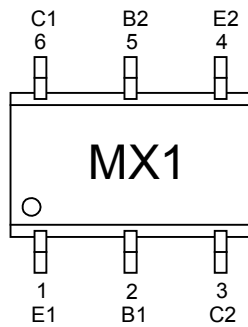
- \*Low current (max.100mA)
- \*Low voltage (max.40V)
- \*Reduces number of components and board space.
- \*Complement to PUMT1.

**APPLICATIONS**

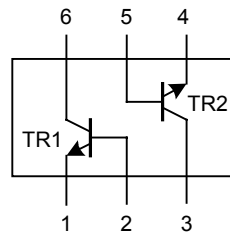
- \*General purpose switching and amplification.



**PIN CONFIGURE/MARKING CODE**



**EQUIVALENT CIRCUITS**



The following characteristics apply to both Tr1 and Tr2

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CE0</sub>	40	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current (DC)	I <sub>c</sub>	100	mA
Peak collector current	I <sub>CM</sub>	200	mA
Peak base current	I <sub>BM</sub>	200	mA
Collector Power Dissipation (total)	P <sub>c</sub>	300	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	MIN	MAX	UNIT
Collector cut-off current	I <sub>cBO</sub>	I <sub>E</sub> =0, V <sub>CB</sub> =30V		100	nA
		I <sub>E</sub> =0, V <sub>CB</sub> =30V, T <sub>j</sub> =150°C		10	μA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> =4V, I <sub>c</sub> =0		100	nA
DC current gain	h <sub>FE</sub>	I <sub>c</sub> =1mA, V <sub>CE</sub> =6V	120		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =50mA, I <sub>B</sub> =5mA (note 1)		200	mV
Collector capacitance	C <sub>c</sub>	I <sub>E</sub> =I <sub>E</sub> =0, V <sub>CB</sub> =12V, f=1MHz		1.5	pF
Transition frequency	f <sub>r</sub>	I <sub>c</sub> =2mA, V <sub>CE</sub> =12V, f=100MHz	100		MHz

Note:1. Pulse test: t<sub>p</sub> ≤ 300μs, δ ≤ 0.02

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