



## PUMX1

## DUAL TRANSISTOR

### NPN GENERAL PURPOSE DUAL TRANSISTOR

#### DESCRIPTION

Two independently operating NPN transistors.

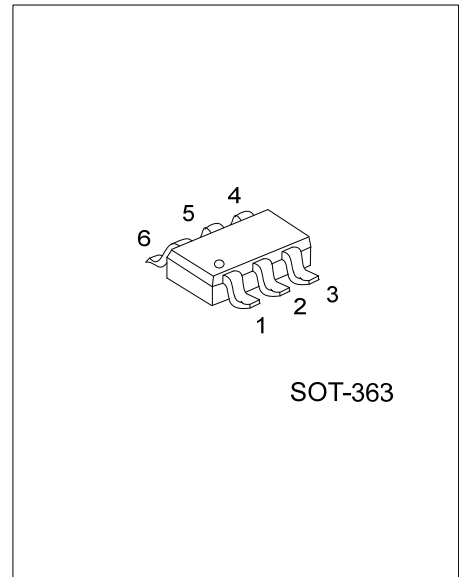
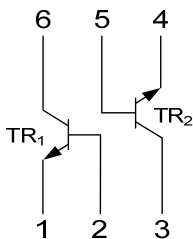
#### FEATURES

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

#### APPLICATIONS

- \* General purpose switching and amplification.

#### SYMBOL



SOT-363

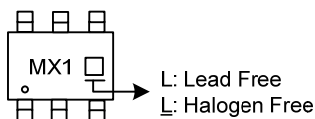
Lead-free: PUMX1L  
 Halogen-free: PUMX1G

#### ORDERING INFORMATION

Ordering Number			Package	Pin Assignment						Packing
Normal	Lead Free	Halogen-Free		1	2	3	4	5	6	
PUMX1-AL6-R	PUMX1L-AL6-R	PUMX1G-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AL6: SOT-363
	(3)Lead Plating	(3) G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn

#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	40	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current (DC)	$I_C$	100	mA
Peak Collector Current	$I_{CM}$	200	mA
Peak Base Current	$I_{BM}$	200	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65~+150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	$I_C=50\text{mA}$ , $I_B=5\text{mA}$			200	mV
Collector Cutoff Current	$I_{CBO}$	$I_E=0$ , $V_{CB}=30\text{V}$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}$ , $I_C=0$			100	nA
DC Current Transfer Ratio	$h_{FE}$	$I_C=1\text{mA}$ , $V_{CE}=6\text{V}$	120			
Transition Frequency	$f_T$	$I_C=2\text{mA}$ , $V_{CE}=12\text{V}$ , $f=100\text{MHz}$	100			MHz
Collector capacitance	$C_C$	$I_E=I_C=0$ , $V_{CB}=12\text{V}$ , $f=1\text{MHz}$			1.5	pF

Note: Pulse test:  $t_p \leq 300\mu\text{s}$ ,  $\delta \leq 0.02$

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