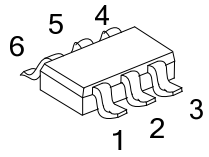
PUMZ1 **Preliminary** ***NPN/PNP SILICON TRANSISTOR***

NPN/PNP GENERAL PURPOSE TRANSISTORS



SOT-363

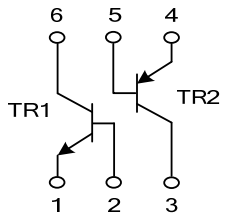
■ DESCRIPTION

The UTC **PUMZ1** is a NPN/PNP transistor, specially used in general purpose of switching and amplifying applications. Thus, two NPN/PNP transistors are operated independently in an SOT-363 package.

■ FEATURES

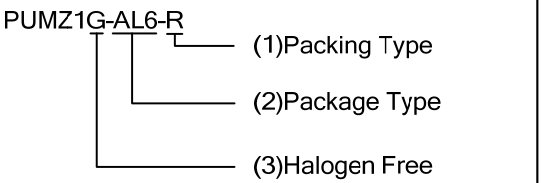
* Low Current: 100mA (MAX.)
* Low Voltage: 40V (MAX.)
* Less Number of Components And Boardspace Required

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
PUMZ1L-AL6-R	PUMZ1G-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

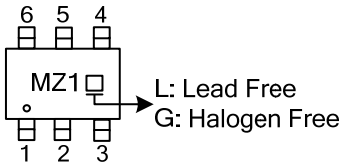


(1) R: Tape Reel

(2) AL6: SOT-363

(3) G: Halogen Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified.)

PARAMETER	SYMBOL	RATINGS	UNIT
Per Transistor; For The PNP Transistor With Negative Polarity			
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
Total Power Dissipation	P_D	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Notes: 1. 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.
2. Device mounted on an FR4 printed-circuit board.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	416	K/W

Note: Device mounted on an FR4 printed-circuit board.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified.)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Per Transistor; For The PNP Transistor With Negative Polarity							
Collect Cut-off Current		I_{CBO}	V_{CB} =30V, I_E =0			100	nA
			V_{CB} =30V, I_E =0, T_J =150°C			10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB} =4V, I_C =0			100	nA
DC Current Gain		h_{FE}	V_{CE} =6V, I_C =1mA	120			
Collector-Emitter Saturation Voltage(Note)		$V_{CE(SAT)}$	I_C =50mA, I_B =5mA			200	mV
Collector Capacitance	TR1	C_C	I_E =i_e =0; V_{CB} =12V; f =1MHz			1.5	pF
	TR2					2.2	pF
Transition Frequency		f_T	V_{CE} =12V, I_C =2mA, f =100MHz	100			MHz

Note: Pulse test: $t_P \le 300$ μs; $\delta \le 0.02$.