

# UNISONIC TECHNOLOGIES CO., LTD

# UFZT958

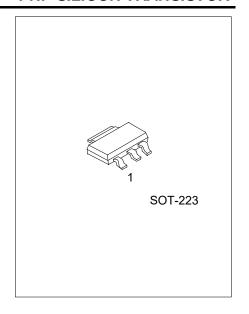
## **Preliminary**

### PNP SILICON TRANSISTOR

PNP SILICON PLANAR HIGH CURRENT (HIGH PERFORMANCE) TRANSISTORS

#### ■ FEATURES

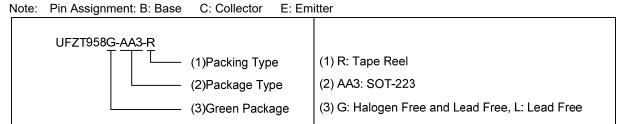
- \* 0.5 Amp continuous current
- \* Up to 1.5 Amps peak current
- \* Very low saturation voltage
- \* Excellent gain characteristics specified up to 1 Amp



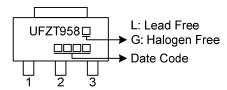
QW-R502-D398.a

#### ORDERING INFORMATION

Ordering Number		Deslesses	Pin Assignment			Da alsin n	
Lead Free	Halogen Free	Package	1	2	3	Packing	
UFZT958L-AA3-R	UFZT958G-AA3-R	SOT-223	В	С	Е	Tape Reel	



#### MARKING



www.unisonic.com.tw 1 of 3

#### ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V <sub>CBO</sub>	-400	٧
Collector-Emitter Voltage		V <sub>CEO</sub>	-400	٧
Emitter-Base Voltage		$V_{EBO}$	-7	٧
Callantan Comment	DC	lc	-0.5	Α
Collector Current	Pulse(Note2)	Icp	-1.5	Α
Collector Dissipation		Pc	1.6	W
Junction Temperature		ТJ	-55 ~ <b>+</b> 150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ <b>+</b> 150	Ĵ

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.

#### ■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT	
Junction to Ambient	θја	78	°C/W	

Note: Device mounted on FR-4 substrate Pc board, 2oz copper, with 1inch square copper plate.

#### ■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
OFF CHARACTERISTICS							
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =-100μA	-400			V	
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-10mA (Note)	-400			V	
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =-100μA	-6			V	
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-300V			-50	nA	
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-6V			-10	nA	
ON CHARACTERISTICS							
		I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA (Note)			-150	mV	
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA (Note)			-200	mV	
		I <sub>C</sub> =-500mA, I <sub>B</sub> =-100mA (Note)			-400	mV	
Base -Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =-500mA, I <sub>B</sub> =-100mA (Note)			-950	mV	
Base-Emitter On Voltage	V <sub>BE(ON)</sub>	Ic=-500mA, VcE=-10V			-840	mV	
	h <sub>FE</sub>	I <sub>C</sub> =-10mA, V <sub>CE</sub> =-10V	100				
DC Current Gain		Ic=-500mA, VcE=-10V	100		300		
		Ic=-1A, VcE=-10V	10				
SMALL-SIGNAL CHARACTERISTICS							
Transition Frequency	f⊤	Ic=-100mA, VcE=-10V, f=50MHz		85		MHz	

Note: Measured under pulsed conditions. Pulse width = 300ms. Duty cycle  $\leq$  2%.

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