



2SC5006

NPN EPITAXIAL SILICON TRANSISTOR

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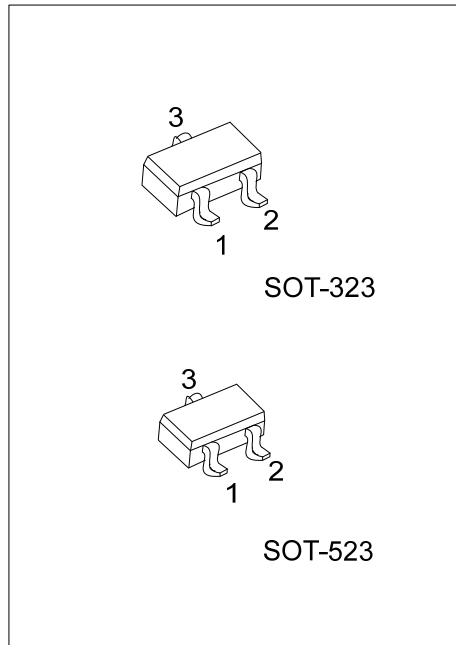
DESCRIPTION

The UTC **2SC5006** is an NPN epitaxial transistor; it uses UTC's advanced technology to provide the customers with low noise figure, high DC current gain and high current capability achieve a very wide dynamic range and excellent linearity.

The UTC **2SC5006** is suitable for low noise and small signal amplifiers from VHF band to UHF band.

FEATURES

- * High DC current gain
- * High current capability
- * Low noise figure



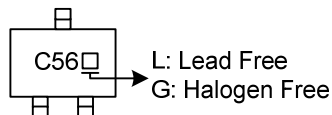
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
2SC5006L-AL3-R	2SC5006G-AL3-R	SOT-323	B	E	C	Tape Reel
2SC5006L-AN3-R	2SC5006G-AN3-R	SOT-523	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

<p>2SC5006G-AL3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) AL3: SOT-323, AN3: SOT-523 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	20	V
Collector-Emitter Voltage		V_{CEO}	12	V
Emitter-Base Voltage		V_{EBO}	3.0	V
Collector Current		I_C	100	mA
Power Dissipation	SOT-323	P_D	200	mW
	SOT-523		125	mW
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-60 ~ +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 Cut-Off Current	I_{CBO}	$V_{CB}=10\text{V}, I_E=0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=1\text{V}, I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=3\text{V}, I_C=7\text{mA}$ (Note 1)	80		160	
Transition Frequency	f_T	$V_{CE}=3\text{V}, I_C=7\text{mA}, f=1\text{GHz}$		4.5		GHz
Feedback Capacitance	C_{re}	$V_{CB}=3\text{V}, I_E=0, f=1.0\text{MHz}$ (Note 2)		0.7		pF

Notes: 1. Pulse measurement $P_W \leq 350\mu\text{s}$, duty cycle $\leq 2\%$.

2. The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

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