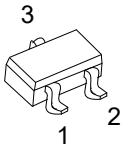
2SC6105

NPN EPITAXIAL SILICON TRANSISTOR

TRANSISTORS SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

The UTC **2SC6105** is an NPN silicon power transistors, it uses UTC's advanced technology to provide customers with high collector base voltage, etc.

The UTC **2SC6105** is suitable for general purpose Power amplifier, vertical output application.

■ FEATURES

* High voltage: V_{CEO}=620V (Max.)
* Low saturation voltage: $V_{CE(SAT)}$=1V (Max.)
  @ I_C=20mA, I_B=0.5mA
* Green & Pb Free

■ ORDERING INFORMATION

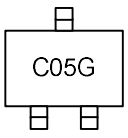
Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
2SC6105G-AE3-R	SOT-23	B	E	C	Tape Reel

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

2SC6105G-AE3-R
(1)Packing Type
(2)Package Type
(3)Green Package

(1) R: Tape Reel
(2) AE3: SOT-23
(3) G: Halogen Free and Lead Free

■ MARKING



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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	620	V
Collector-Emitter Voltage		V_{CEO}	620	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	Continuous	I_C	50	mA
	Peak	I_{CM}	100	mA
Base Current		I_B	25	mA
Collector Power Dissipation		P_C	200	mW
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Notes: 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

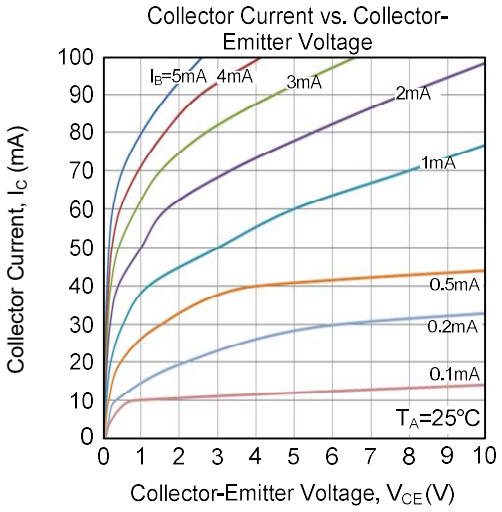
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	625	°C/W

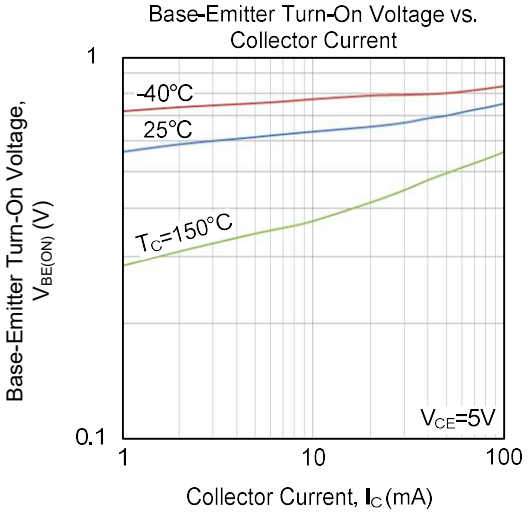
■ ELECTRICAL CHARACTERISTICS (T_C=25°C, unless otherwise specified)

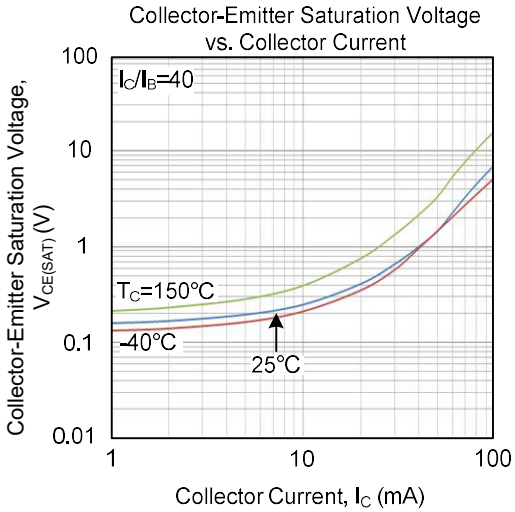
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=10μA, I_E=0	620			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	620			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_C=0, I_E=50μA	7			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=600V, I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=7V, I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1mA	80			
		V_{CE}=5V, I_C=20mA	100		300	
		V_{CE}=5V, I_C=10μA	70			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=20mA, I_B=0.5mA			1	V
Base-Emitter Voltage	V_{BE}	V_{CE}=5V, I_C=20mA		0.66	0.85	V
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		4.5		pF

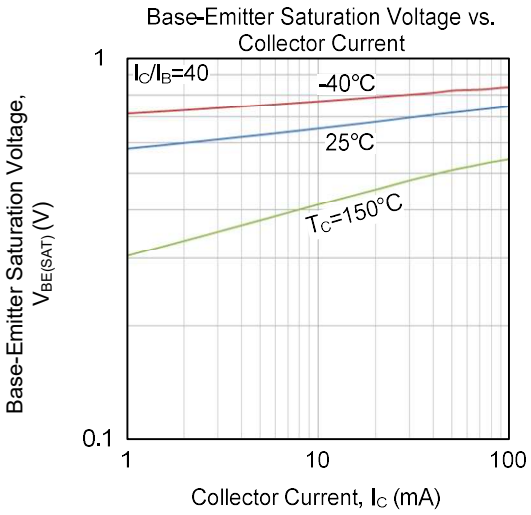
Notes: Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%.

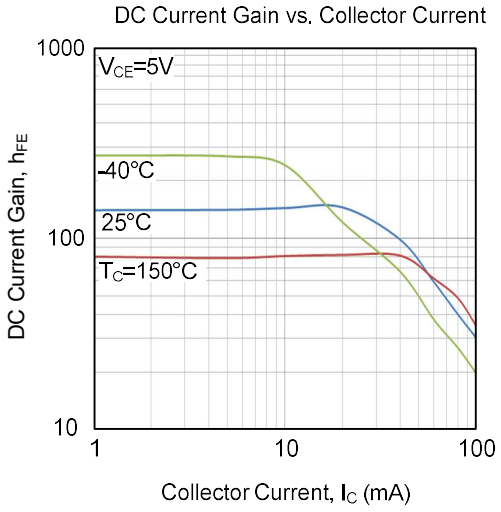
■ TYPICAL CHARACTERISTICS

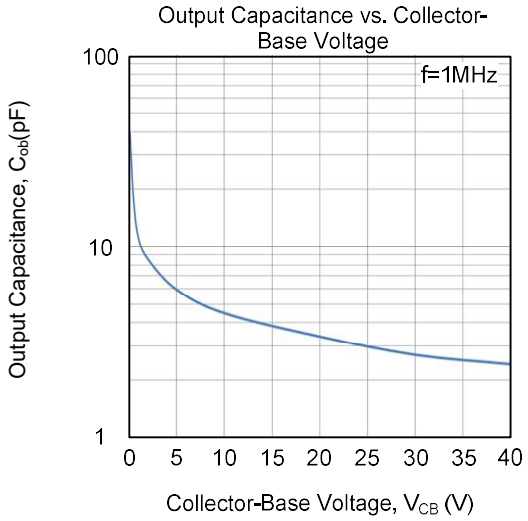




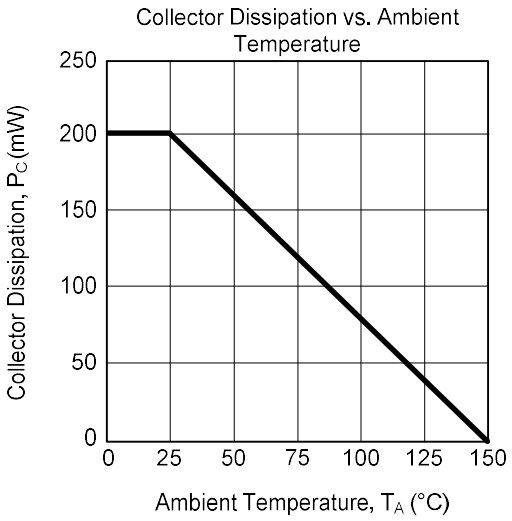








■ TYPICAL CHARACTERISTICS



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