



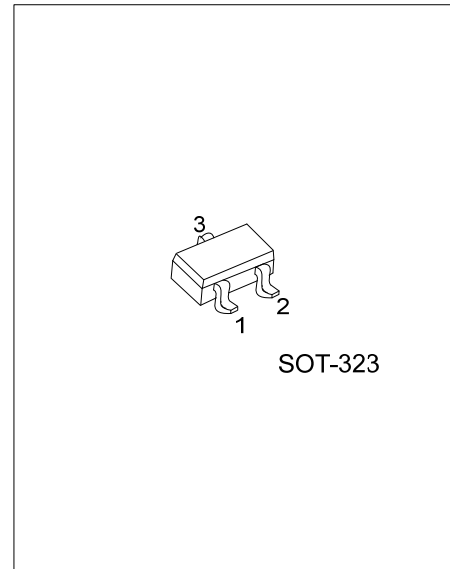
2SC4774

NPN SILICON TRANSISTOR

HIGH FREQUENCY AMPLIFIER TRANSISTOR, RF SWITCHING (6V, 50mA)

FEATURES

- * Very low output-on resistance (R_{ON})
- * Low capacitance



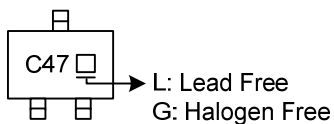
ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC4774L-AL3-R	2SC4774G-AL3-R	SOT-323	B	E	C	Tape Reel

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

<p>2SC4774G-AL3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) AL3: SOT-323 (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}	12	V
Collector-Emitter Voltage	V_{CEO}	6	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_D	0.2	W
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 ~ +150	$^\circ\text{C}$

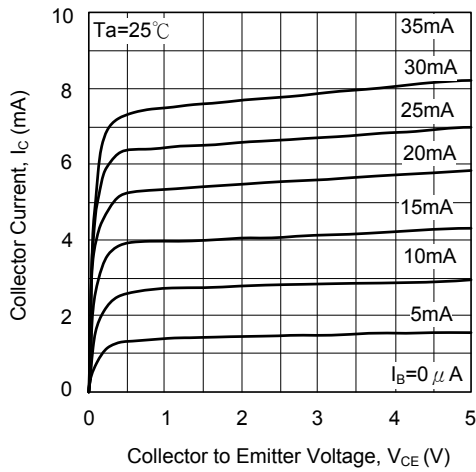
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

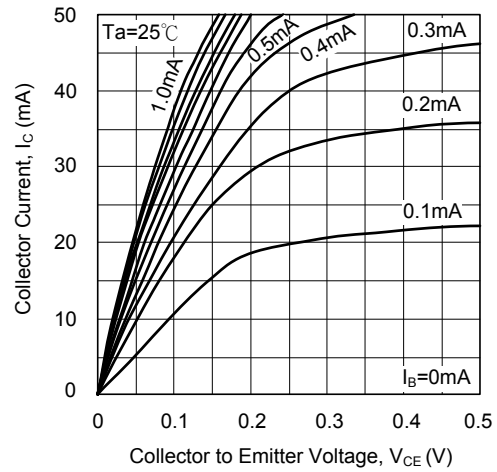
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 10\mu\text{A}$	12			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1\text{mA}$	6			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu\text{A}$	3			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C/I_B = 10\text{mA}/1\text{mA}$			0.3	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 10\text{V}$			0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2\text{V}$			0.5	μA
DC Current Transfer Ratio	h_{FE}	$V_{CE}/I_C = 5\text{V}/5\text{mA}$	270		560	
Transition Frequency	f_T	$V_{CE} = 5\text{V}$, $I_E = -10\text{mA}$, $f = 200\text{MHz}$	300	800		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0\text{A}$, $f = 1\text{MHz}$		1	1.7	pF
Output-On Resistance	R_{ON}	$I_B = 3\text{mA}$, $V_{IN} = 100\text{mVrms}$, $f = 500\text{kHz}$		2		Ω

■ TYPICAL CHARACTERISTIC

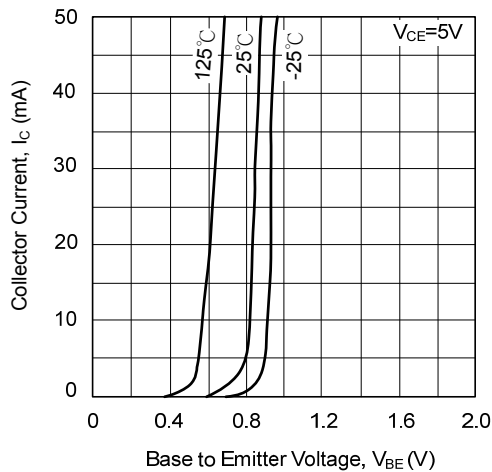
Grounded Emitter Output Characteristics (I)



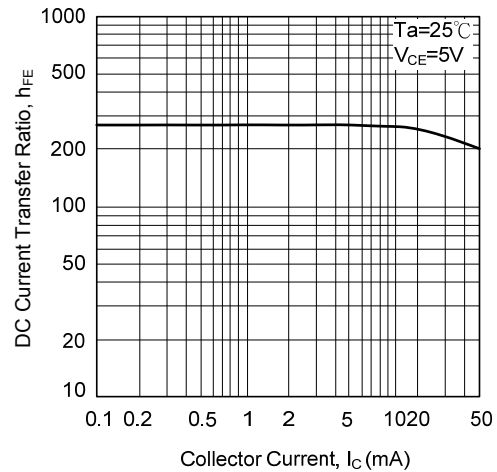
Grounded Emitter Output Characteristics (II)



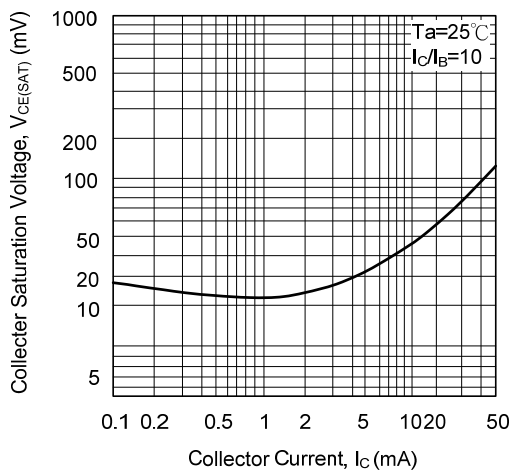
Grounded Emitter Propagation Characteristics



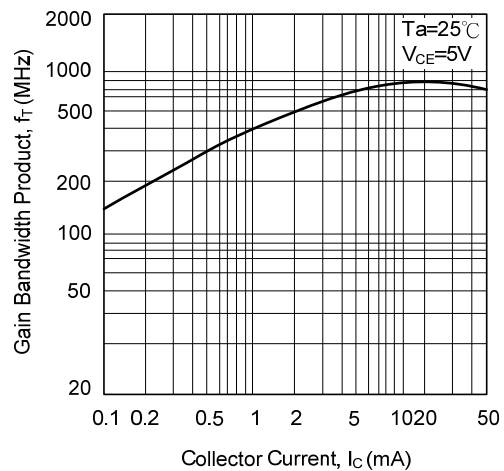
DC Current Gain vs. Collector Current



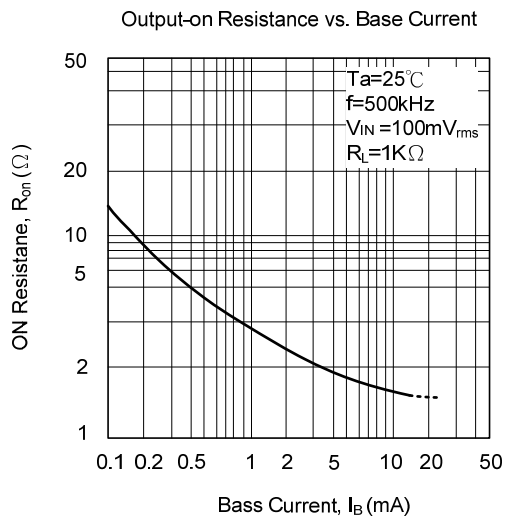
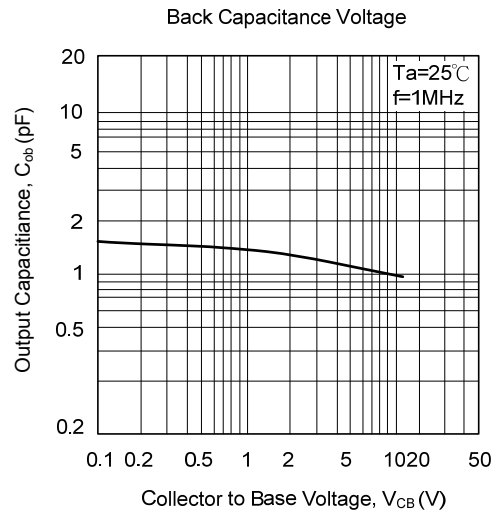
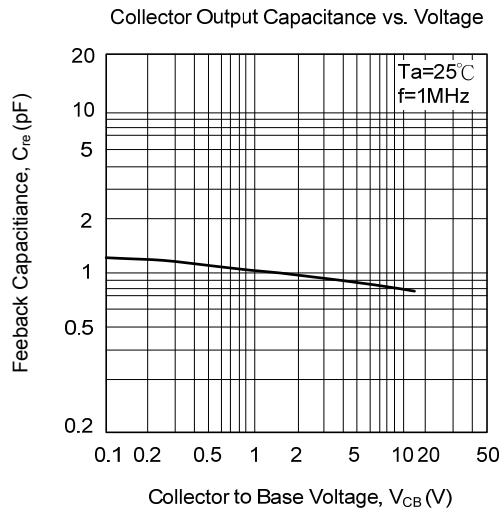
Collector-Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



■ TYPICAL CHARACTERISTIC (Cont.)



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