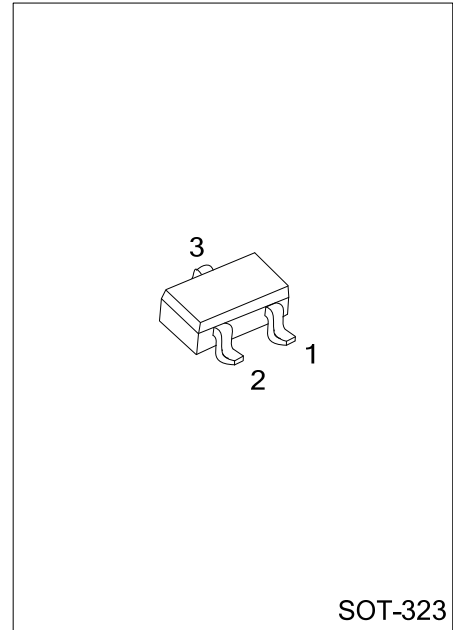




## 2SC4774

## NPN SILICON TRANSISTOR

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



SOT-323

#### FEATURES

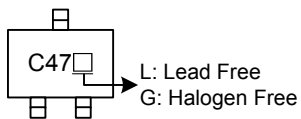
- \* Very low output-on resistance ( $R_{ON}$ ).
- \* Low capacitance.

#### ORDERING INFORMATION

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

<p>2SC4774G-AL3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) R: Tape Reel (2) AL3: SOT-323 (3) G: Halogen Free, L: Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

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	°C
Storage Temperature	$T_{STG}$	-40 ~ +150	°C

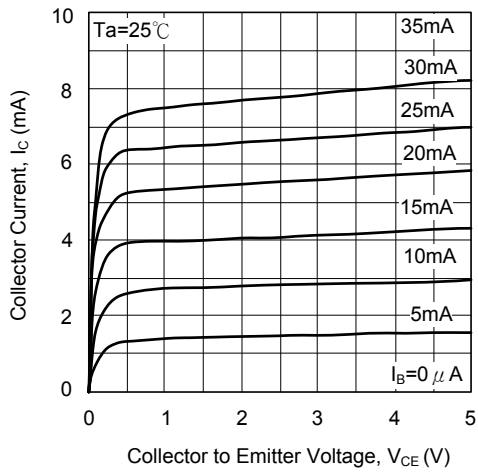
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL SPECIFICATIONS (Ta=25°C)

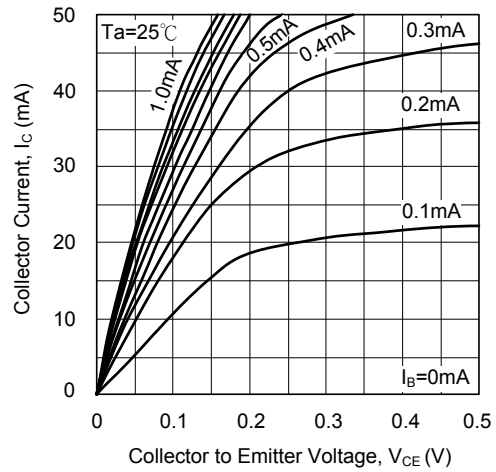
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = 10\mu A$	12			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = 1mA$	6			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = 10\mu A$	3			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 10V$			0.5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

## TYPICAL CHARACTERISTIC

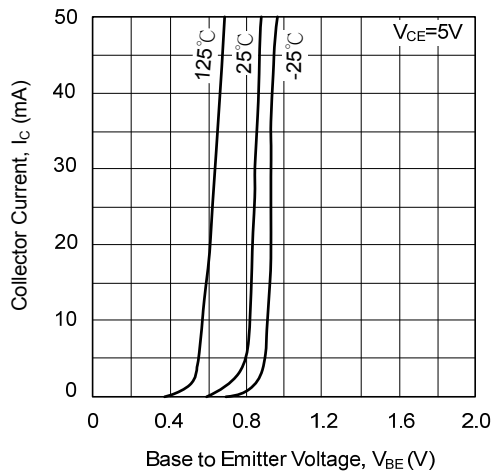
Grounded Emitter Output Characteristics ( I )



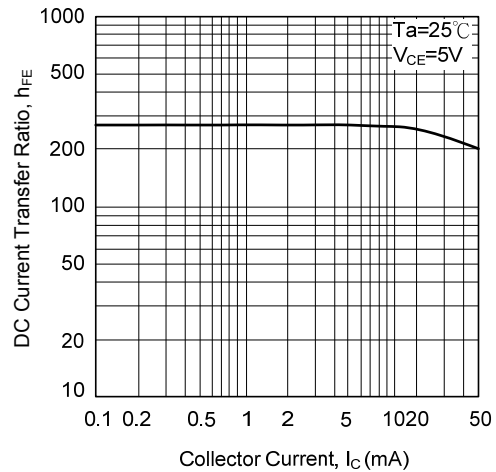
Grounded Emitter Output Characteristics ( II )



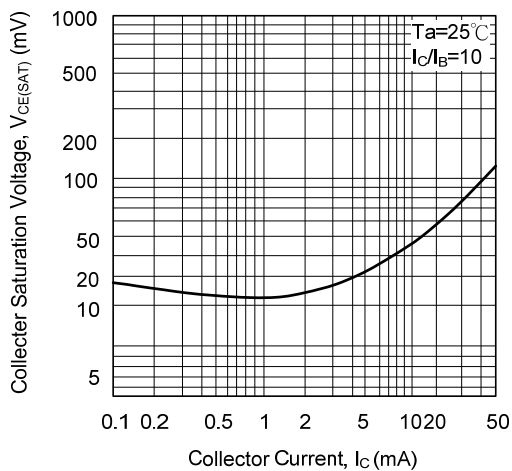
Grounded Emitter Propagation Characteristics



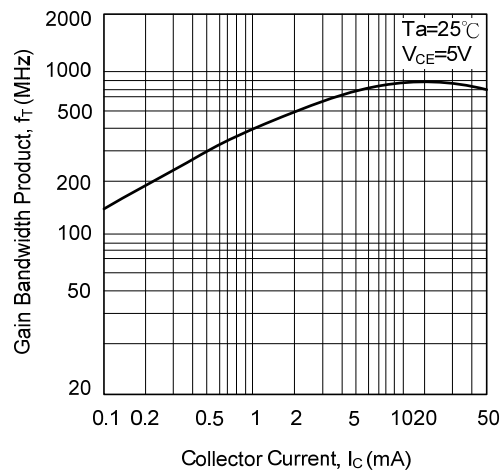
DC Current Gain vs. Collector Current



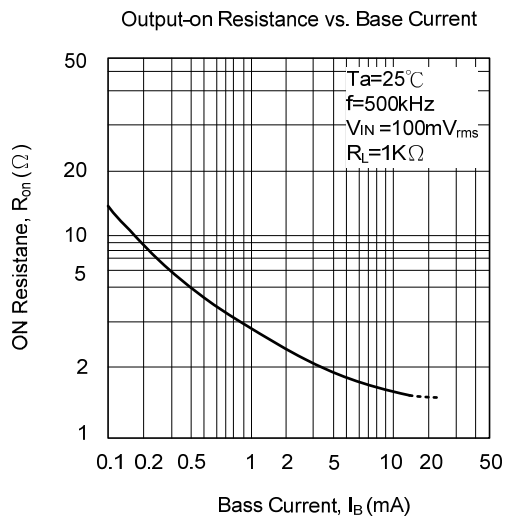
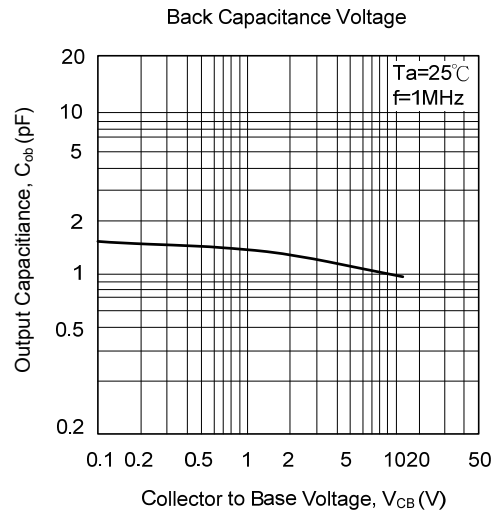
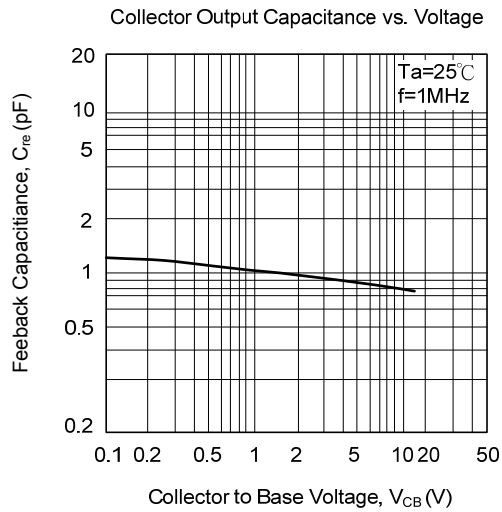
Collector-Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



■ TYPICAL CHARACTERISTIC(Cont.)



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