



UNISONIC TECHNOLOGIES CO., LTD

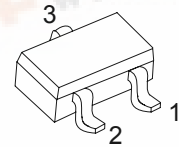
2SC4774

NPN SILICON TRANSISTOR

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

FEATURES

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



SOT-323

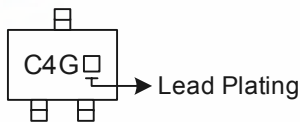
*Pb-free plating product number: 2SC4774L

ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SC4774-AL3-R	2SC4774L-AL3-R	SOT-323	E	B	C	Tape Reel

2SC4774L-AL3-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) AL3: SOT-323 (3) L: Lead Free Plating, Blank: Pb/Sn
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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.

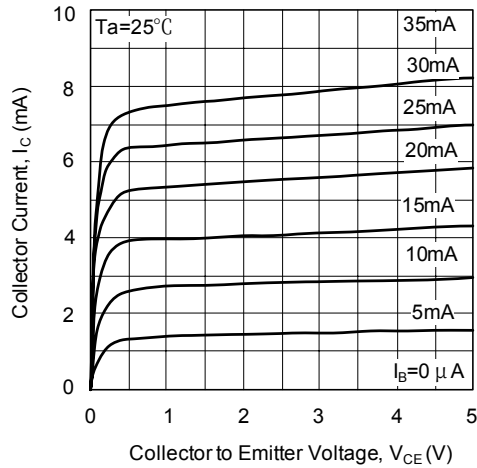
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL SPECIFICATIONS (Ta=25°C)

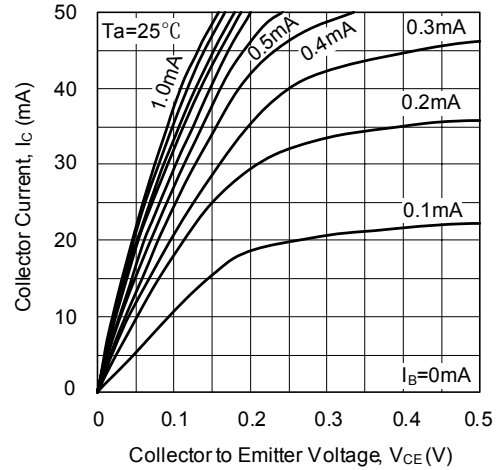
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 10\mu A$	12			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1mA$	6			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu A$	3			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 10V$			0.5	V
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2V$			0.5	μA
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C/I_B = 10mA/1mA$			0.3	μA
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}	$I_B = 3mA, V_{IN} = 100mV_{rms}, f = 500kHz$		2		Ω

■ TYPICAL CHARACTERISTIC

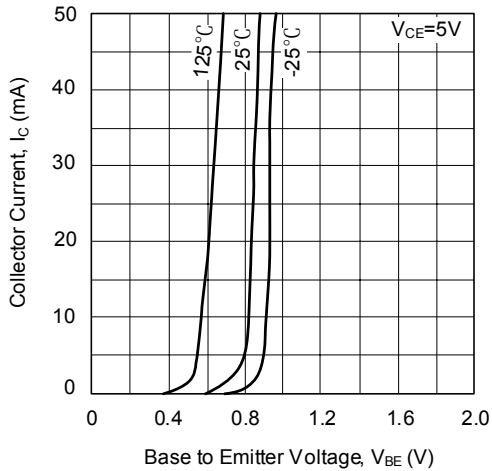
Grounded Emitter Output Characteristics (I)



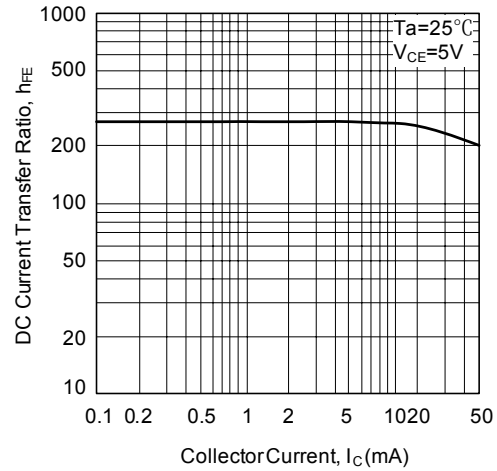
Grounded Emitter Output Characteristics (II)



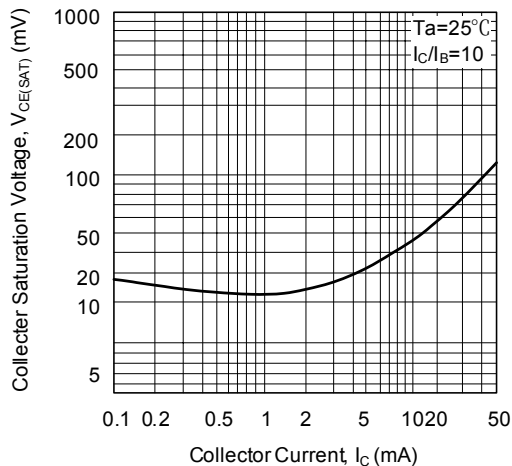
Grounded Emitter Propagation Characteristics



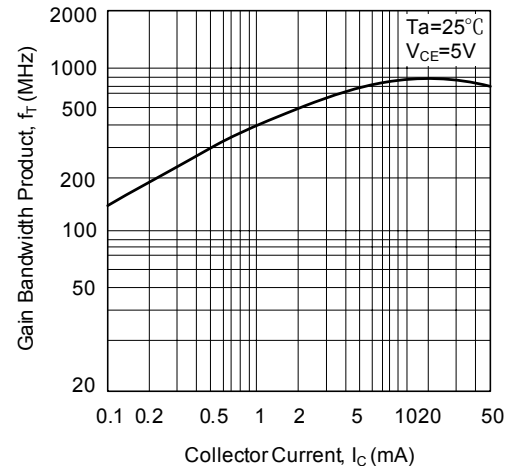
DC Current Gain vs. Collector Current



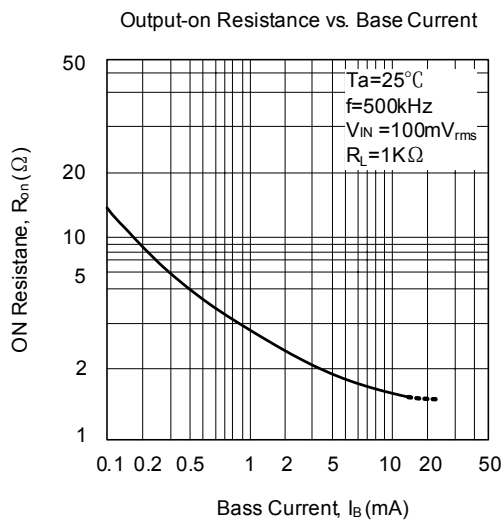
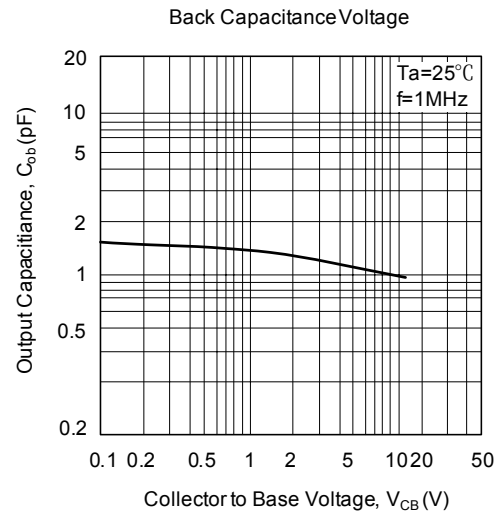
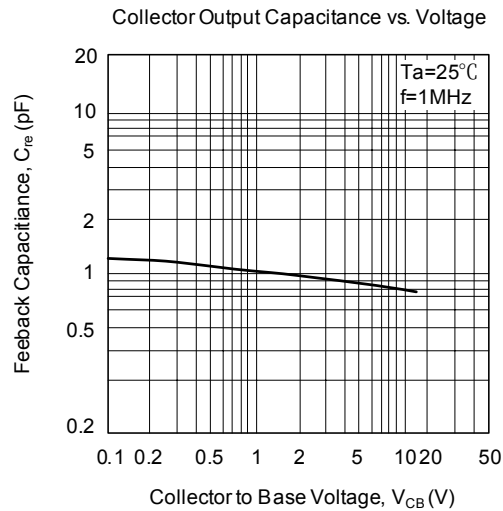
Collector-Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



■ TYPICAL CHARACTERISTIC(Cont.)



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