High frequency amplifier transistor, RF switching (6V, 50mA)

2SC4774 / 2SC4713K

● Features

- 1) Very low output-on resistance (Ron).
- 2) Low capacitance.

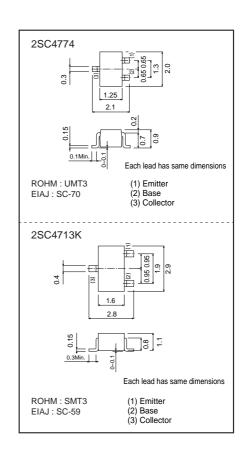
● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	12	V
Collector-emitter voltage	Vceo	6	V
Emitter-base voltage	VEBO	3	V
Collector current	lc	50	mA
Collector power dissipation	Pc	0.2	W
Junction temperature	Tj	150	°C
Storage temperature	Tstq	-55 to +150	°C

●Packaging specifications and hFE

Туре	2SC4774	2SC4713K	
Package	UMT3	SMT3	
hre	S	S	
Marking	BM*	BM*	
Code	T106	T146	
Basic ordering unit (pieces)	3000	3000	

*Denotes hre



●External dimensions (Unit : mm)

●Electrical characteristics (Ta=25°C)

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Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	12	-	-	V	Ic=10μA
Collector-emitter breakdown voltage	BVceo	6	-	-	V	Ic=1mA
Emitter-base breakdown voltage	ВУєво	3	-	-	V	Iε=10μA
Collector cutoff current	Ісво	-	-	0.5	μА	VcB=10V
Emitter cutoff current	Ієво	-	-	0.5	μА	V _{EB} =2V
Collector-emitter saturation voltage	VcE(sat)	-	-	0.3	V	Ic/I _B =10mA/1mA
DC current transfer ratio	hfe	270	-	560	-	VcE/Ic=5V/5mA
Transition frequency	fτ	300	800	-	MHz	VcE=5V, IE= -10mA, f=200MHz
Output capacitance	Cob	-	1	1.7	pF	Vcb=10V, Ie=0A, f=1MHz
Output-on resistance	Ron	-	2	-	Ω	I _B =3mA, V _I =100mVrms, f=500kHz

•Electrical characteristic curves

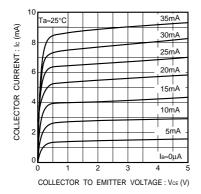


Fig.1 Grounded emitter output characteristics (I)

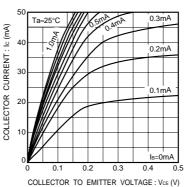


Fig.2 Grounded emitter output characteristics (II)

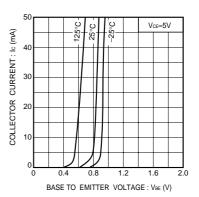


Fig.3 Grounded emitter propagation characteristics

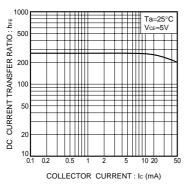


Fig.4 DC current gain vs. collector current

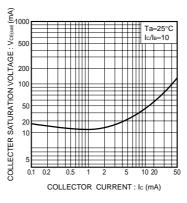


Fig.5 Collector-emitter saturation voltage vs. collector current

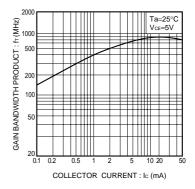


Fig.6 Gain bandwidth product vs. collector current

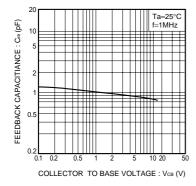


Fig.7 Collector output capacitance vs. voltage

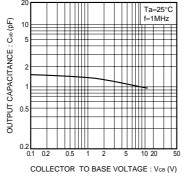


Fig.8 Back capacitance voltage

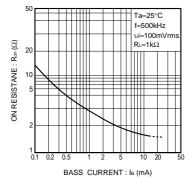


Fig.9 Output-on resistance vs. base current

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