

High-frequency Amplifier Transistor (25V, 50mA, 300MHz)

2SC5659 / 2SC4618H / 2SC4618 / 2SC4098 / 2SC2413K / 2SC2058S

●Features

- 1) Low collector capacitance. (Cob : Typ. 1.3pF)
- 2) Low rbb, high gain, and excellent noise characteristics.

●Absolute maximum ratings (Ta=25°C)

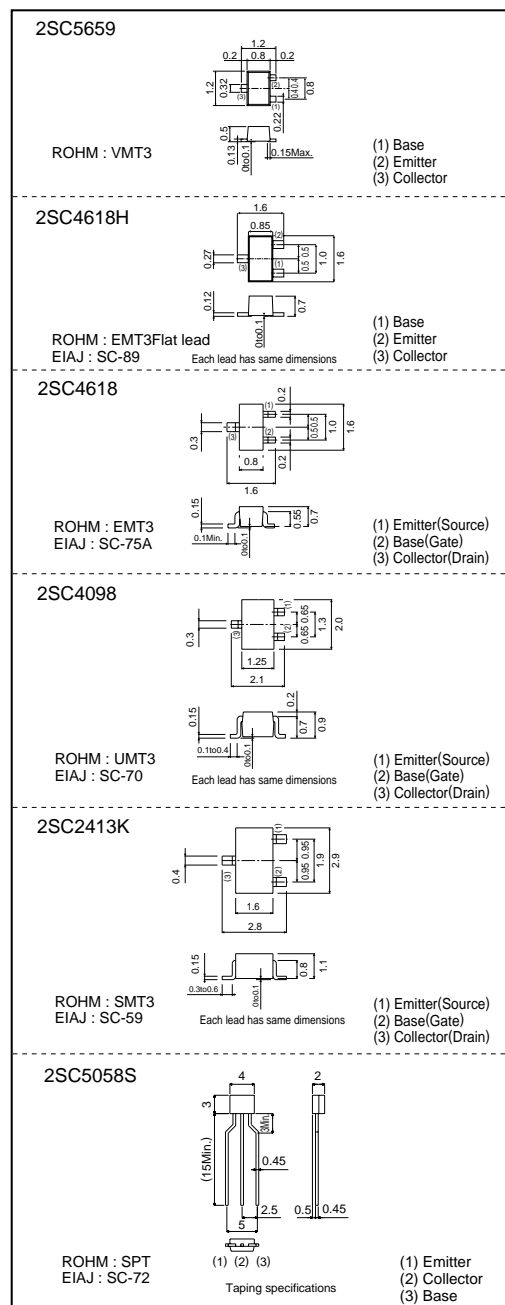
Parameter	Symbol	Limits	Unit	
Collector-base voltage	V _{CE0}	40	V	
Collector-emitter voltage	V _{CE0}	25	V	
Emitter-base voltage	V _{EB0}	5	V	
Collector current	I _c	50	mA	
Collector power dissipation	P _c	2SC5659, 2SC4618H, 2SC4618	0.15	W
		2SC4098, 2SC2413K	0.2	
		2SC2058S	0.3	
Junction temperature	T _J	150	°C	
Storage temperature	T _{stg}	-55~+150	°C	

●Packaging specifications and hFE

Type	2SC5659	2SC4618H	2SC4618	2SC4098	2SC2413K	2SC2058S
Package	VMT3	EMT3H	EMT3	UMT3	SMT3	SPT
hFE	NPQ	NPQ	NPQ	NPQ	NPQ	P
Marking	A*	A*	A*	A*	A*	-
Code	T2L	T2L	TL	T106	T146	TP
Basic ordering unit (pieces)	8000	8000	3000	3000	3000	5000

* Denotes hFE

●External dimensions (Units : mm)



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Transistors

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Collector-base breakdown voltage	BV _{cb0}	40	-	-	V	I _c =50μA	
Collector-emitter breakdown voltage	BV _{ceo}	25	-	-	V	I _c =1mA	
Emitter-base breakdown voltage	BV _{eb0}	5	-	-	V	I _e =50μA	
Collector cutoff current	I _{cb0}	-	-	0.5	μA	V _{CB} =24V	
Emitter cutoff current	I _{eb0}	-	-	0.5	μA	V _{EB} =3V	
Collector-emitter saturation voltage	V _{CE(sat)}	-	0.1	0.3	V	I _c /I _s =10mA/1mA	
DC current transfer ratio	2SC5659,2SC4618H,2SC4618, 2SC4098,2SC2413K 2SC2058S	h _{FE}	56	-	270	-	V _{CE} =6V, I _c =1mA
			82	-	180		
Transition frequency	f _r	150	300	-	MHz	V _{CE} =6V, I _E =-1mA, f=100MHz	
Output capacitance	C _{ob}	-	1.3	2.2	pF	V _{CB} =6V, I _E =0A, f=1MHz	