

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

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_{CB0}	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	0.15 0.2 0.3	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~+150	°C

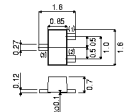
! Packaging specifications and hFE

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

Denotes hFE

! External dimensions (Units : mm)

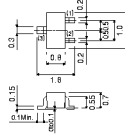
2SC4618H



ROHM : EMT3H
EIAJ : SC-89

(1) Emitter
(2) Base
(3) Collector

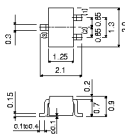
2SC4618



ROHM : EMT3
EIAJ : SC-75A

(1) Emitter(Source)
(2) Base(Gate)
(3) Collector(Drain)

2SC4098

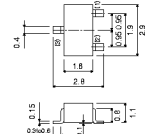


ROHM : UMT3
EIAJ : SC-70

Each lead has same dimensions

(1) Emitter(Source)
(2) Base(Gate)
(3) Collector(Drain)

2SC2413K

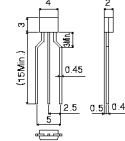


ROHM : SMT3
EIAJ : SC-59

Each lead has same dimensions

(1) Emitter(Source)
(2) Base(Gate)
(3) Collector(Drain)

2SC5058S



ROHM : SPT
EIAJ : SC-72

(1) (2) (3)
Taping specifications

(1) Emitter
(2) Collector
(3) Base

2SC4618H / 2SC4618 / 2SC4098 / 2SC2413 / 2SC2058S

Transistors

I Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CSB}	40	-	-	V	I _C =50μA
Collector-emitter breakdown voltage	BV _{CEB}	25	-	-	V	I _C =1mA
Emitter-base breakdown voltage	BV _{EBB}	5	-	-	V	I _E =50μA
Collector cutoff current	I _{CBO}	-	-	0.5	μA	V _{CB} =24V
Emitter cutoff current	I _{EBB}	-	-	0.5	μA	V _{EB} =3V
Collector-emitter saturation voltage	V _{CE(sat)}	-	0.1	0.3	V	I _C /I _B =10mA/1mA
DC current transfer ratio	h _{FE}	56	-	270	-	V _{CE} =6V, I _C =1mA
		82	-	180	-	
Transition frequency	f _T	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