

Medium Power Transistor (50V,0.5A)

2SC1741AS

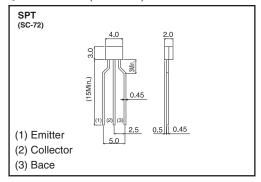
Features

- 1) High current.(Ic=5A)
- 2) Low saturation voltage, typically VcE(sat)=0.1V at Ic / IB=150mA / 15mA.

●Packaging specifications and h_{FE}

Туре	2SC1741AS
Package	SPT
h _{FE}	QR
Marking	_
Code	TP
Basic ordering unit (pleces)	5000

Dimensions (Unit : mm)



■Absolute maximum rationgs (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CBO}	50	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	Ic	0.5	Α
Collector power dissipation	Pc	0.3	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CBO}	50	_	_	V	I _C =100μA
Collector-emitter breakdown voltage	BV _{CEO}	50	_	_	V	I _C =1mA
Emitter-base breakdown voltage	BV _{EBO}	5	_	_	V	I _E =100μA
Collector outoff current	I _{CBO}	_	_	0.5	μΑ	V _{CB} =30V
Emitter cutoff current	I _{EBO}	_	_	0.5	μΑ	V _{EB} =4V
DC current rransfer ratio	h _{FE}	120	_	390	_	V _{CE} /I _C =3V/0.1A
Collector-emitter saturation voltage	V _{CE(sat)}	_	_	0.4	V	I _C /I _B =150mA/15mA
Transition frequency	f _T	_	250	_	MHz	V _{CE} =5V , I _E =-20mA , f=100MHz
Output capacitance	Cob	_	6.5	_	pF	V _{CB} =10V , I _E =0A , f=1MHz

Electrical characteristic curves

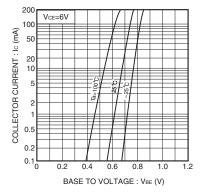


Fig.1 Ground emitter propagation characteristics

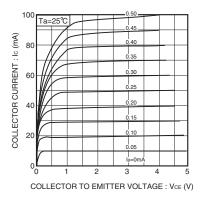


Fig.2 Ground emitter output characteristics

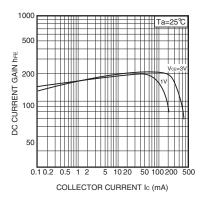


Fig.3 DC current gain vs. Collector current (I)

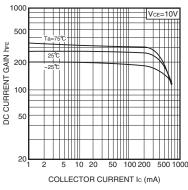


Fig.4 DC current gain vs. Collector currnet (II)

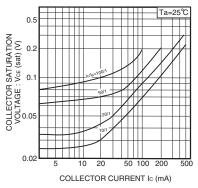


Fig.5 Collector-emitter saturation voltage vs. Collector current

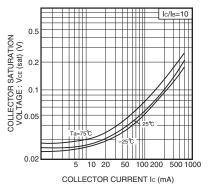


Fig.6 Collector-emitter saturation voltage vs. collector current

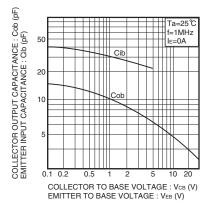


Fig.7 Input-and-output capacity vs.voltage characteristic

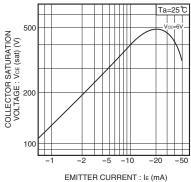


Fig.8 Transition frequency vs.emitter current

Notes

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