

# Medium Power Transistor (50V,0.5A)

## 2SC1741AS

### ● Features

- 1) High current. ( $I_C=5A$ )
- 2) Low saturation voltage, typically  $V_{CE(sat)}=0.1V$  at  $I_C / I_B=150mA / 15mA$ .

### ● Packaging specifications and $h_{FE}$

Type	2SC1741AS
Package	SPT
$h_{FE}$	QR
Marking	—
Code	TP
Basic ordering unit (pieces)	5000

### ● Absolute maximum ratings (Ta=25°C)

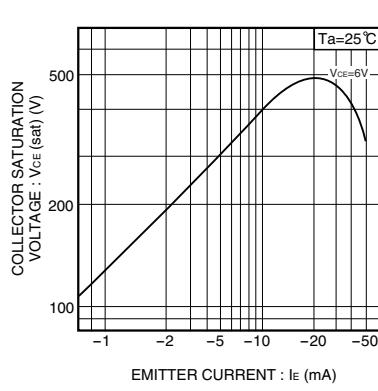
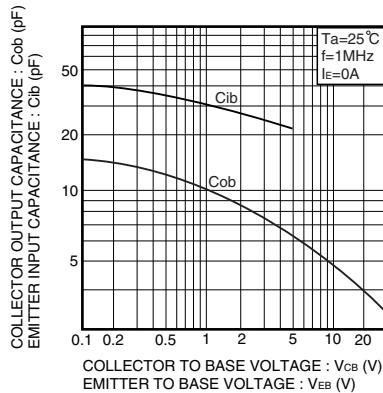
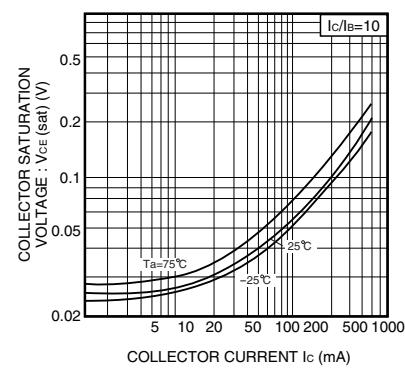
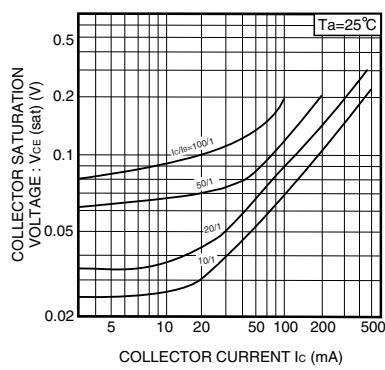
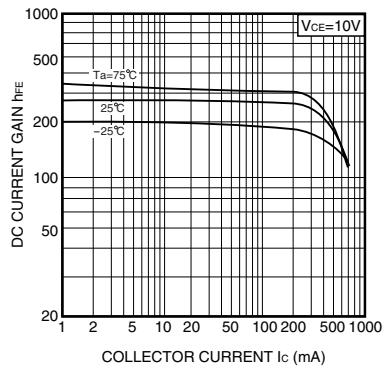
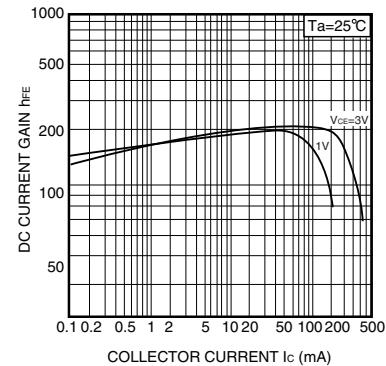
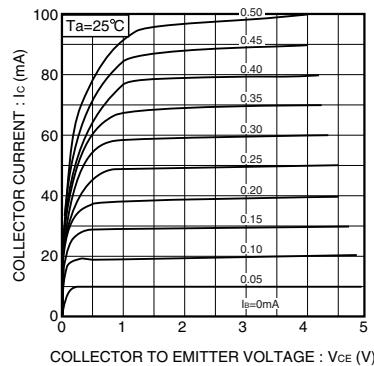
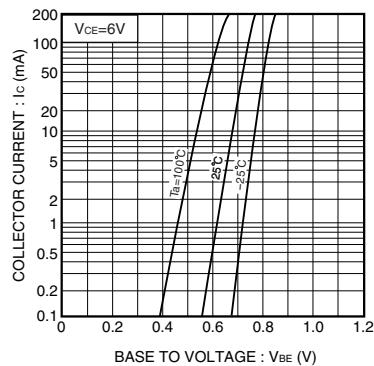
Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	50	V
Collector-emitter voltage	$V_{CEO}$	50	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	0.5	A
Collector power dissipation	$P_c$	0.3	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	—55 to +150	°C

### ● Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	50	—	—	V	$I_C=100\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	50	—	—	V	$I_C=1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	5	—	—	V	$I_E=100\mu A$
Collector cutoff current	$I_{CBO}$	—	—	0.5	$\mu A$	$V_{CB}=30V$
Emitter cutoff current	$I_{EBO}$	—	—	0.5	$\mu A$	$V_{EB}=4V$
DC current transfer 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	$C_{ob}$	—	6.5	—	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

## Transistors

## ● Electrical characteristic curves



## Appendix

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