

Transistors

Power Transistor (80V, 0.3A)

2SC3359S

●Features

- 1) High breakdown voltage, $BV_{CEO}=80V$
- 2) Low saturation voltage, typically $V_{CE(sat)}=0.2V$ at $I_B=0.3A / 0.03A$

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	80	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.3	A
Collector power dissipation	P_C	0.3	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	80	—	—	V	$I_C=1mA$
Collector-base breakdown voltage	BV_{CBO}	80	—	—	V	$I_C=50\mu A$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_E=50\mu A$
Collector outoff current	I_{CBO}	—	—	0.5	μA	$V_{CB}=80V$
Emitter outoff current	I_{EBO}	—	—	0.5	μA	$V_{EB}=4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.5	V	$V_C/I_{CB}=0.3V/0.03A$
DC current transfer ratio	h_{FE}	120	—	390	—	$V_{CE}=3V, I_C=0.1A$
Transition frequency	f_T	50	150	—	MHz	$V_{CE}=5V, I_E=-0.01A, f=100MHz$
Output capacitance	C_{ob}	—	5	8	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

●Packaging specification and h_{FE}

Type	2SC3359S
Package	SPT
h_{FE}	QR
Code	TP
Basic orderin unit (pieces)	5000

Transistors

●Electrical characteristic curves

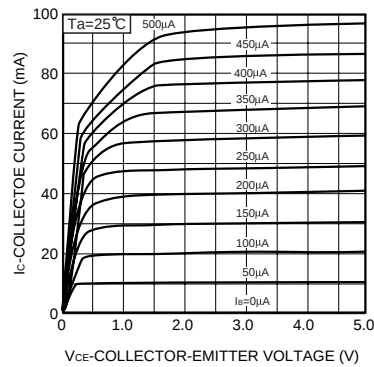


Fig.1 Typical output characteristics

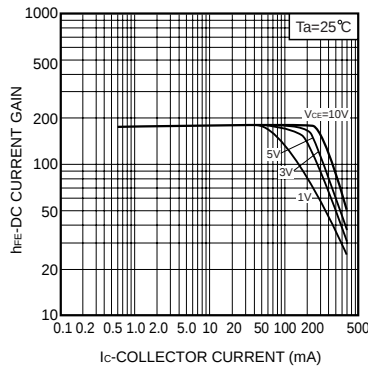


Fig.2 DC current gain vs. collector current

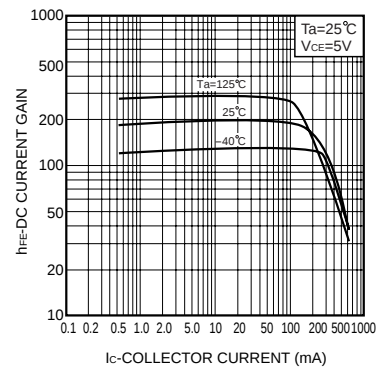


Fig.3 DC current gain vs. collector current

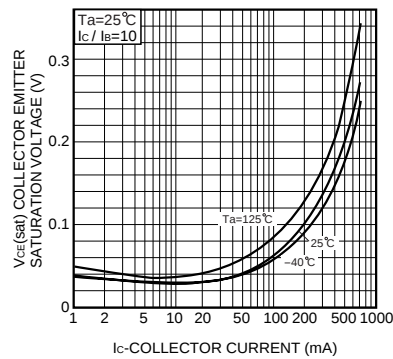


Fig.4 Collector emitter saturation voltage vs. collector current

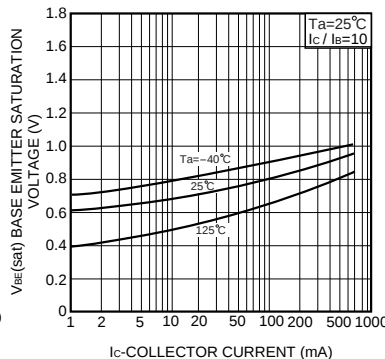


Fig.5 Base emitter saturation voltage vs. collector current

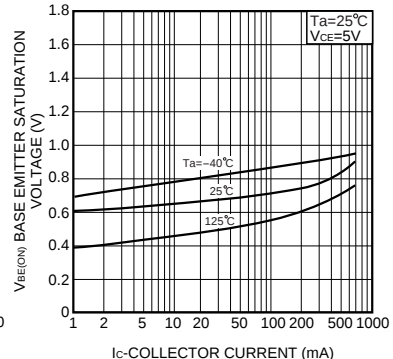


Fig.6 Base emitter 'ON' voltage vs. collector current

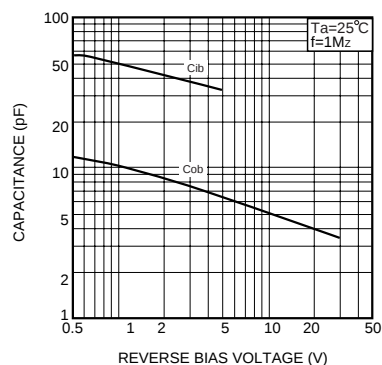


Fig.7 Capacitance vs. reverse bias voltage

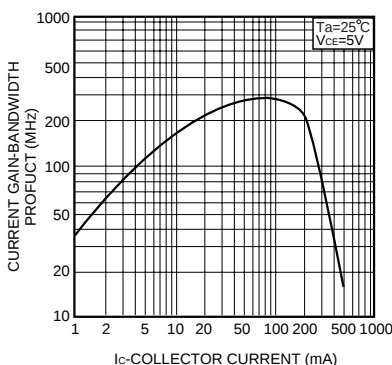


Fig.8 Current gain-bandwidth product vs. collector current

Appendix

Notes

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