

Power Transistor (400V, 0.5A)

2SD2568

●Features

1) High breakdown voltage.($BV_{CEO}=400V$)

●Absolute maximum ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	400	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	0.5	A
Collector power dissipation	P_C	10	W($T_C=25^{\circ}C$)
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}C$

●Packaging specifications and h_{FE}

Type	2SD2568
Package	CPT3
h_{FE}	PQ
Code	TL
Basic ordering unit (pieces)	2500

●Electrical characteristics ($T_a=25^{\circ}C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	400	-	-	V	$I_C=50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	400	-	-	V	$I_C=1mA$
Emitter-base breakdown voltage	BV_{EBO}	7	-	-	V	$I_E=50\mu A$
Collector cutoff current	I_{CBO}	-	-	10	μA	$V_{CB}=400V$
Emitter cutoff current	I_{EBO}	-	-	10	μA	$V_{EB}=6V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=100mA, I_B=10mA$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.0	V	$I_C=100mA, I_B=10mA$
DC current transfer ratio	h_{FE}	82	-	270	-	$V_{CE}/I_C=5V/50mA$
Transition frequency	f_T	-	13.5	-	MHz	$V_{CE}=5V, I_E=-50mA, f=10MHz$
Output capacitance	C_{ob}	-	8	-	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

Transistors

●Electrical characteristics curves

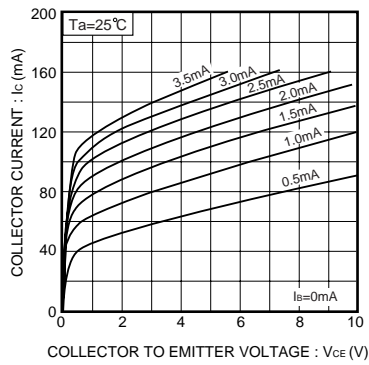


Fig.1 Grounded emitter output characteristics

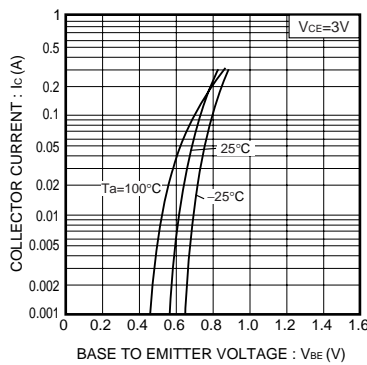


Fig.2 Grounded emitter propagation characteristics

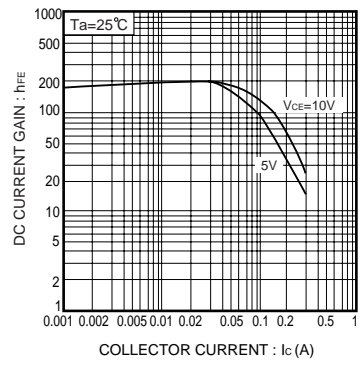


Fig.3 DC current gain vs. collector current (I)

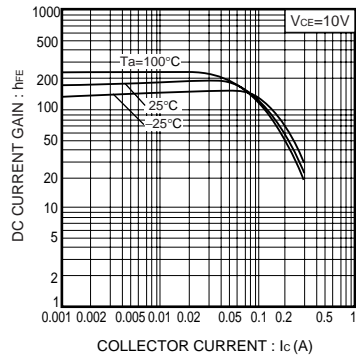


Fig.4 DC current gain vs. collector current (II)

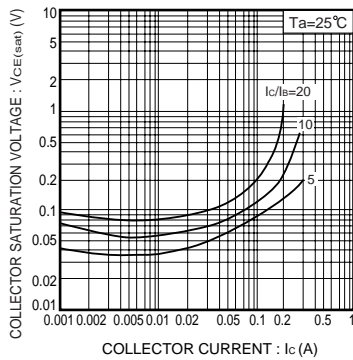


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

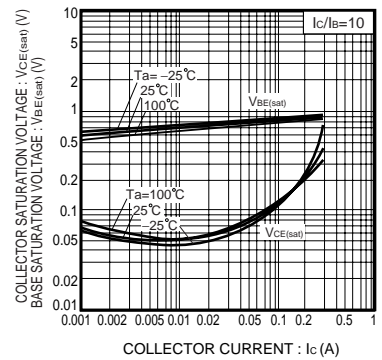


Fig.6 Collector-emitter saturation voltage vs. collector current (II)
Base-emitter saturation voltage vs. collector current

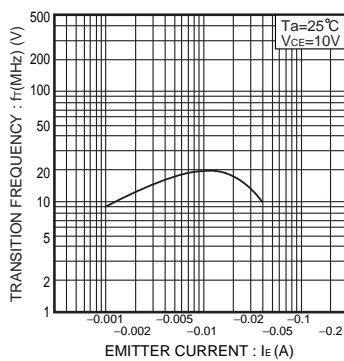


Fig.7 Gain bandwidth product vs. emitter current

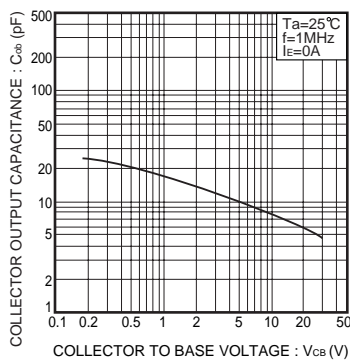


Fig.8 Collector output capacitance vs. collector-base voltage

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