Power Transistor (400V, 0.5A)

2SD2568

●Features

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

●Absolute maximum ratings (Ta=25°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(Tc=25°C)
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C

●Packaging specifications and h_{FE}

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

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	400	–	–	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	400	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	7	–	–	V	I_E=50μA
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	Cob	–	8	–	pF	V_{CB}=10V , I_E=0A , f=1MHz

●**Electrical characteristics curves**

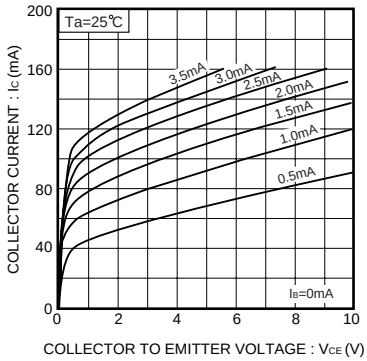

Fig.1 Grounded emitter output characteristics

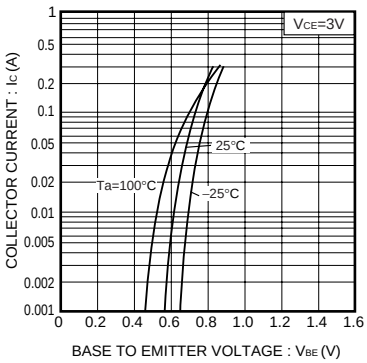

Fig.2 Grounded emitter propagation characteristics

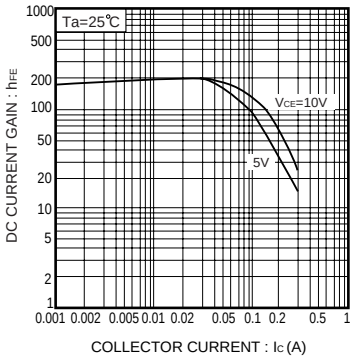

Fig.3 DC current gain vs. collector current (I)

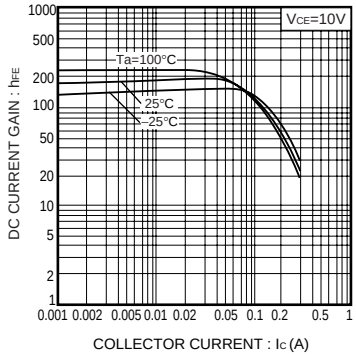

Fig.4 DC current gain vs. collector current (II)

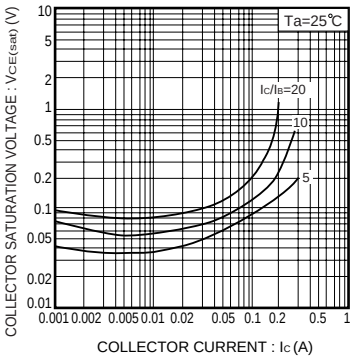

Fig.5 Collector-emitter saturation voltage vs. collector current (I)

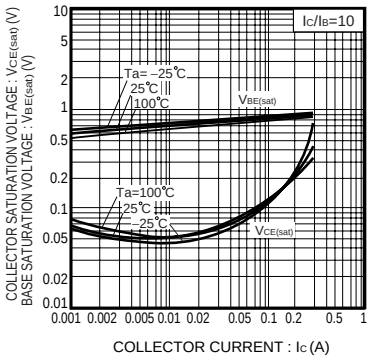

Fig.6 Collector-emitter saturation voltage vs. collector current (II) Base-emitter saturation voltage vs. collector current

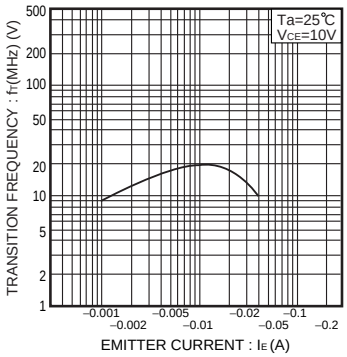

Fig.7 Gain bandwidth product vs. emitter current

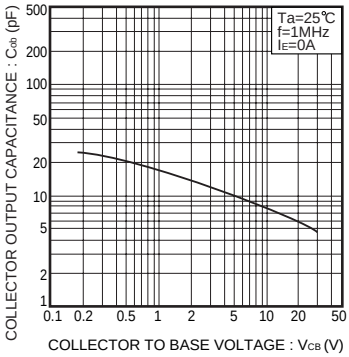

Fig.8 Collector output capacitance vs. collector-base voltage

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