

Transistors

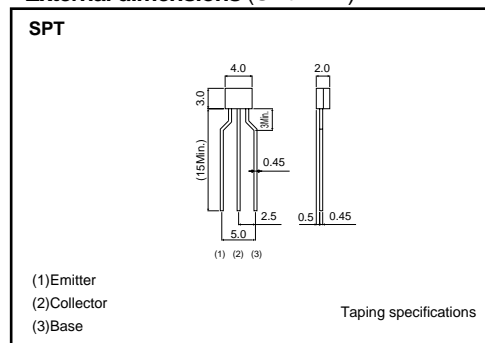
Muting Transistor (15V, 1A)

2SD1468S

●Features

- 1) Low saturation voltage, typically $V_{CE(sat)} = 0.08V$ at $I_C / I_B = 500mA / 500\mu A$.
- 2) Ideal for low voltage, high current drives.
- 3) High DC current gain and high current.

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CES}	15	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1	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}	30	-	-	V	$I_C = 50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	15	-	-	V	$I_C = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	$I_E = 50\mu A$
Collector cutoff current	I_{CBO}	-	-	0.5	μA	$V_{CB} = 20V$
Emitter cutoff current	I_{EBO}	-	-	0.5	μA	$V_{EB} = 4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.08	0.4	V	$I_C / I_B = 0.5mA / 50mA$
DC current transfer ratio	h_{FE}	120	-	560	-	$V_{CE} / I_C = 3V / 0.1A$
Transition frequency	f_T	50	150	-	MHz	$V_{CE} = 5V, I_E = -50mA, f = 100MHz$
Output capacitance	C_{ob}	-	15	30	pF	$V_{CE} = 10V, I_E = 0A, f = 1MHz$

●Packaging specifications and h_{FE}

Type	2SD1468S
Package	SPT
h_{FE}	QRS
Code	TP
Basic ordering unit (pieces)	5000

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●Electrical characteristics curves

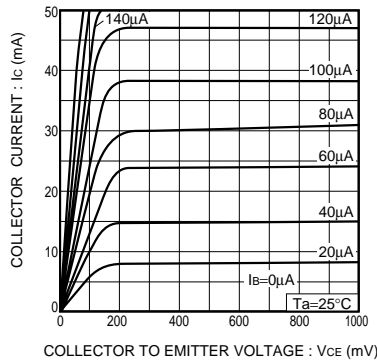


Fig.1 Ground emitter output characteristics

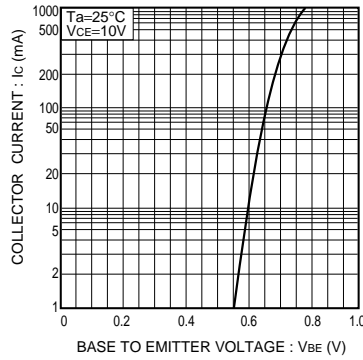


Fig.2 Ground emitter propagation characteristics

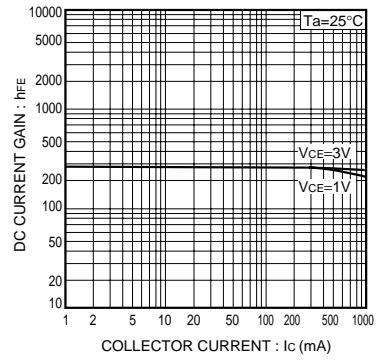


Fig.3 DC current gain vs. collector current

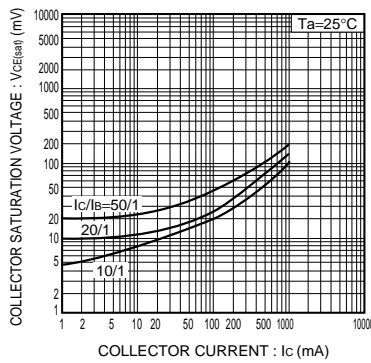


Fig.4 Collector-emitter saturation voltage vs. collector current

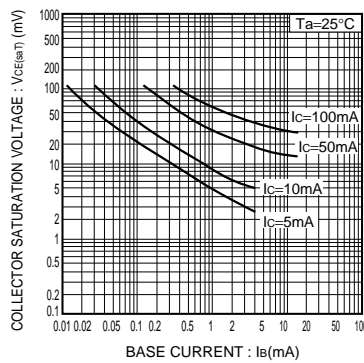


Fig.5 Collector-emitter saturation voltage vs. base current

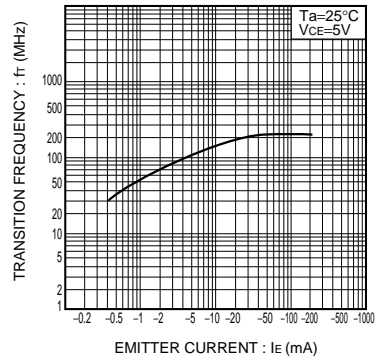


Fig.6 Gain bandwidth product vs. emitter current

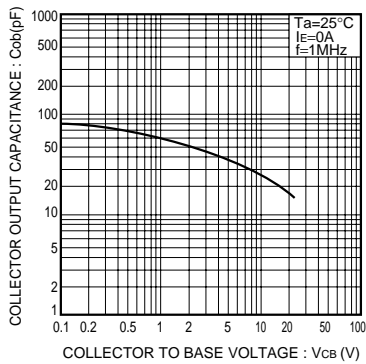


Fig.7 Collector output capacitance vs. collector-base voltage

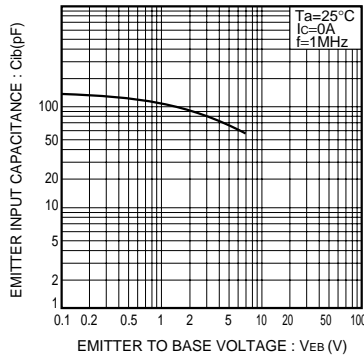


Fig.8 Emitter input capacitance vs. emitter-base voltage

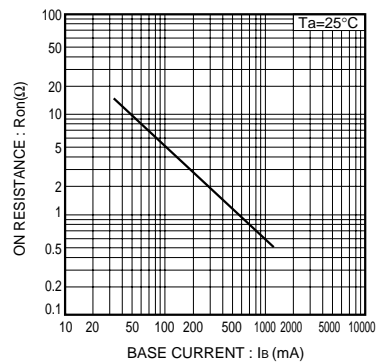


Fig.9 "ON" resistance vs. base current characteristics

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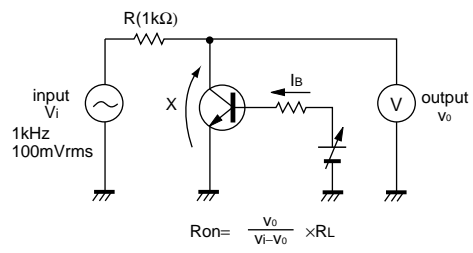


Fig.10 "ON" resistance measurement circuit

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