

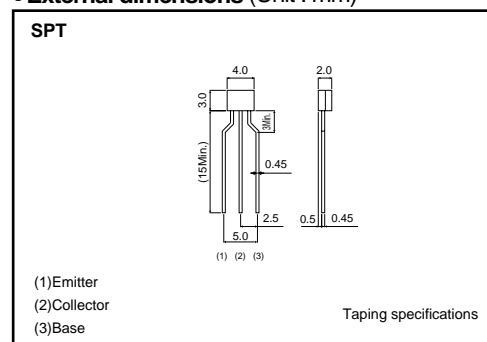
# Muting Transistor (15V, 1A)

## 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	$\mu A$	$V_{CB} = 20V$
Emitter cutoff current	$I_{EBO}$	—	—	0.5	$\mu A$	$V_{EB} = 4V$
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

## Transistors

## ●Electrical characteristics curves

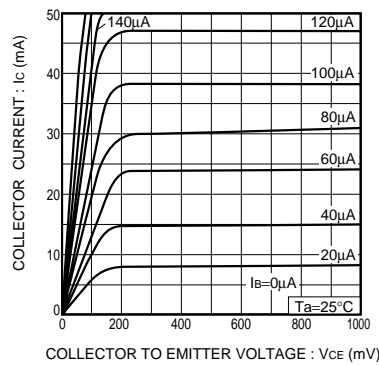


Fig.1 Ground emitter output characteristics

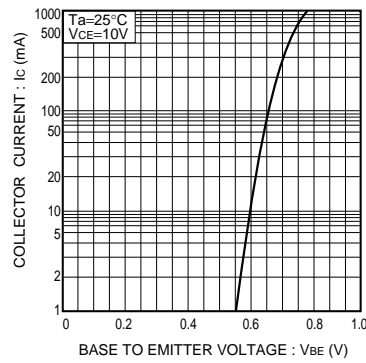


Fig.2 Ground emitter propagation characteristics

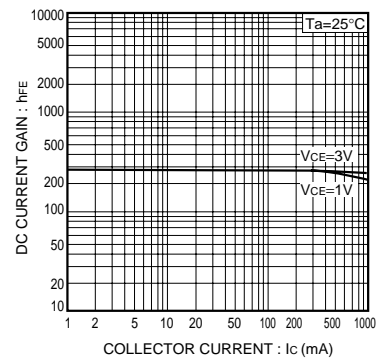


Fig.3 DC current gain vs. collector current

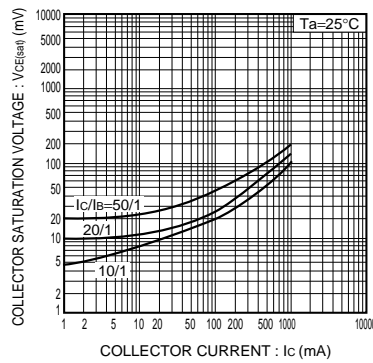


Fig.4 Collector-emitter saturation voltage vs. collector current

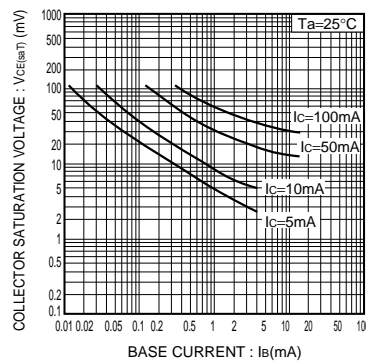


Fig.5 Collector-emitter saturation voltage vs. base current

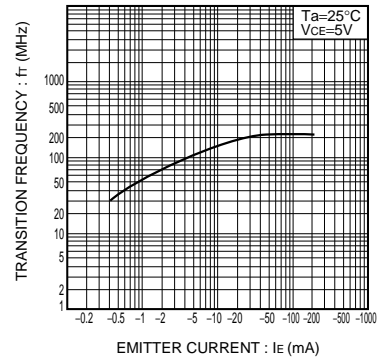


Fig.6 Gain bandwidth product vs. emitter current

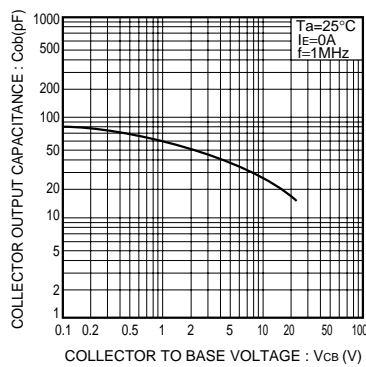


Fig.7 Collector output capacitance vs. collector-base voltage

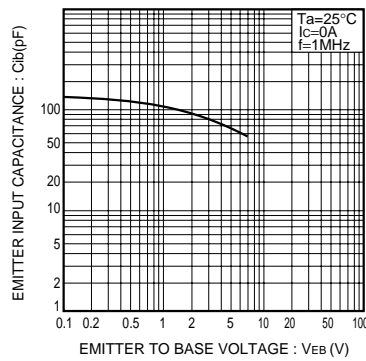


Fig.8 Emitter input capacitance vs. emitter-base voltage

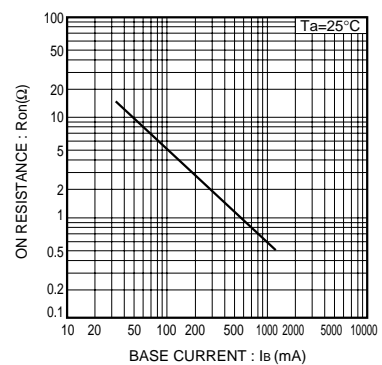


Fig.9 "ON" resistance vs. base current characteristics

## Transistors

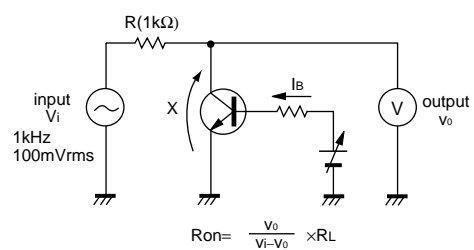


Fig.10 "ON" resistance measurement circuit

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