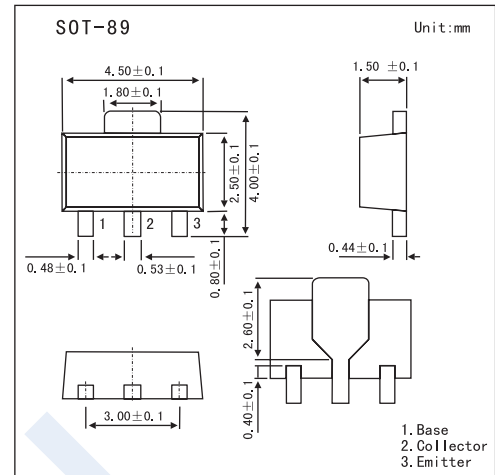


## Medium Power Transistor

## 2SD1664



### Features

- Low  $V_{CE(sat)}$
- Compliments to 2SB1132

### Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	32	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current (DC)	$I_c$	1	A
$P_w=20\text{ms, duty}=1/2$		2	A
Collector Power Dissipation	$P_c$ *	0.5	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\* mounted on a 40x40x0.7mm ceramic board.

### Electrical Characteristics $T_a = 25^\circ\text{C}$

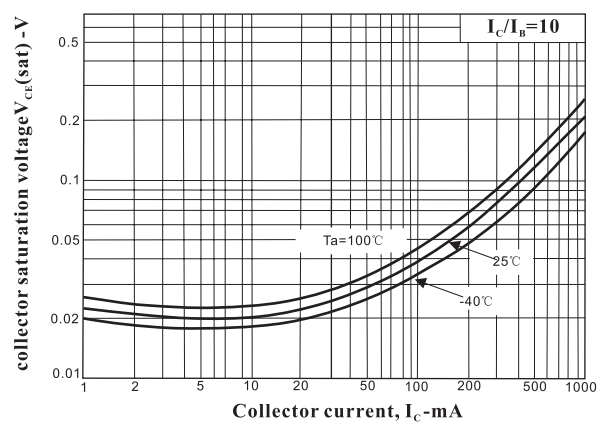
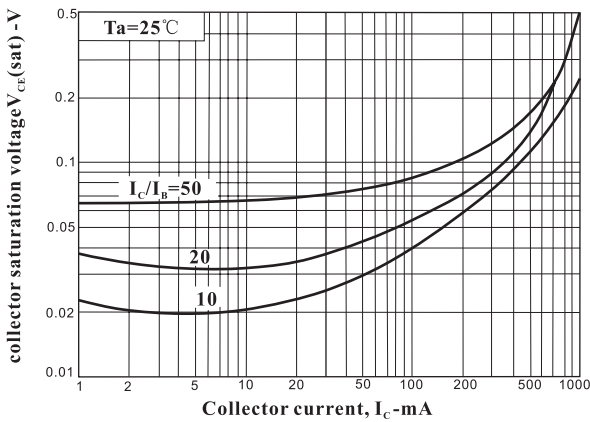
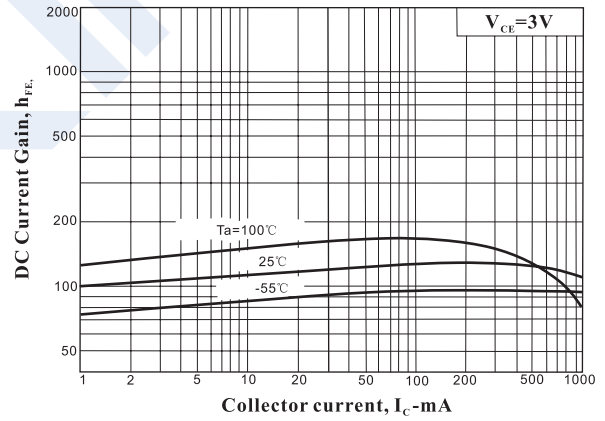
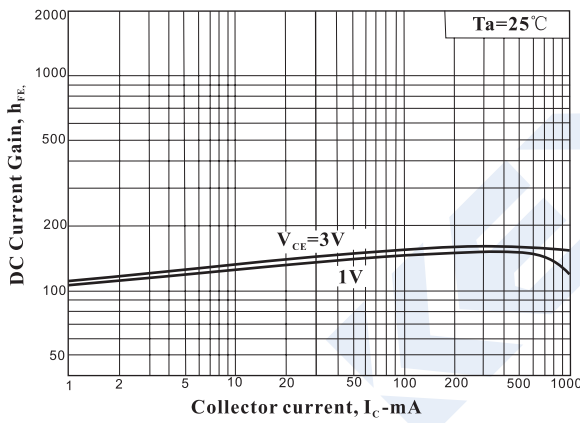
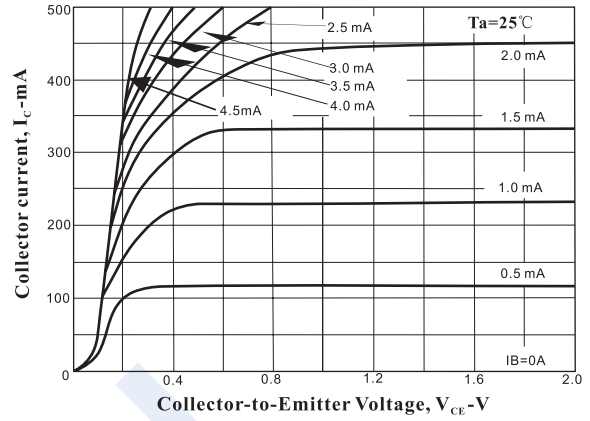
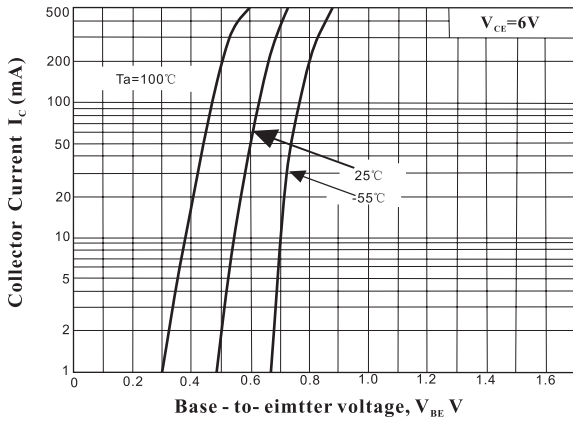
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 20\text{V}, I_E = 0$			0.5	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$			0.5	$\mu\text{A}$
Collector-base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 50\mu\text{A}, I_E = 0$	40			V
Collector-emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, I_B = 0$	32			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu\text{A}$	5			
DC Current Gain	$h_{FE}$	$V_{CE} = -3\text{V}, I_C = -0.1\text{A}$	82		390	
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$		0.15	0.4	V
Transition Frequency	$f_T$	$V_{CE} = 5\text{V}, I_E = -50\text{mA}, f = 100\text{MHz}$		150		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		15		pF

### $h_{FE}$ Classification

Marking	DA		
Rank	P	Q	R
$h_{FE}$	82 ~ 180	120 ~ 270	180 ~ 390

2SD1664

Electrical Characteristics Curves



2SD1664

