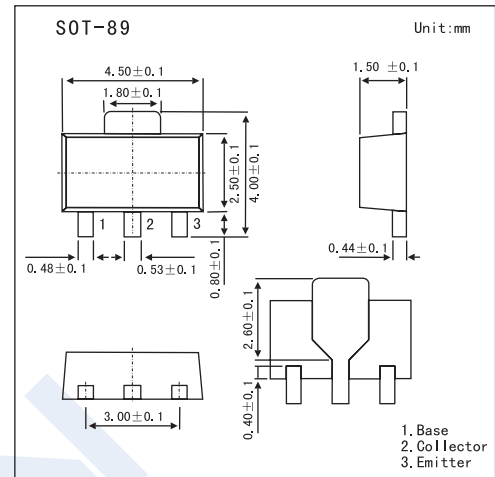


## High Voltage Control Applications

## 2SC3515



### Features

- High Voltage:  $V_{CB0} = 300V$ ,  $V_{CEO} = 300V$
- Low Saturation Voltage:  $V_{CE(sat)} = 0.5V$  (max)
- Small Collector Output Capacitance:  $C_{ob} = 3pF$  (typ.)
- $P_c = 1$  to  $2W$  (mounted on ceramic substrate)
- Small Flat Package
- Complementary to 2SA1384

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	300	V
Collector-Emitter Voltage	$V_{CEO}$	300	V
Emitter-Base Voltage	$V_{EB0}$	6	V
Collector Current	$I_c$	100	mA
Base Current	$I_B$	20	mA
Collector Power Dissipation	$P_c$	500	mW
	$P_c^*$	1000	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature Range	$T_{stg}$	-55 to +150	$^\circ C$

\* mounted on a ceramic substrate ( $250\text{ mm}^2 \times 0.8\text{ t}$ )

### Electrical Characteristics $T_a = 25^\circ C$

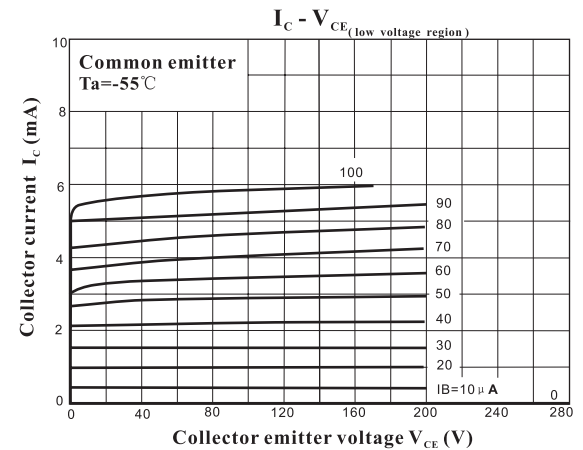
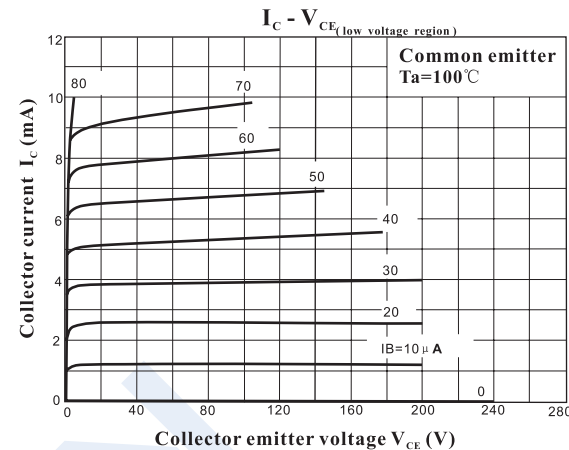
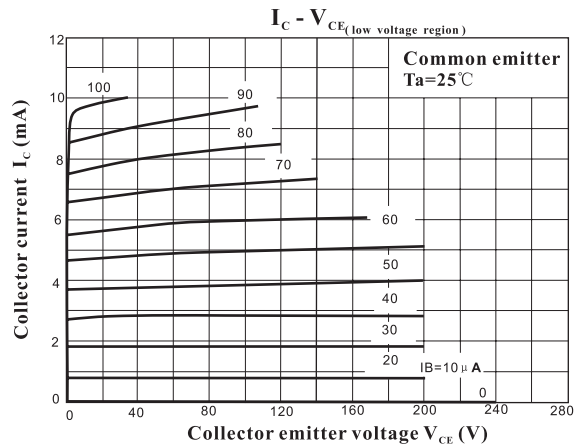
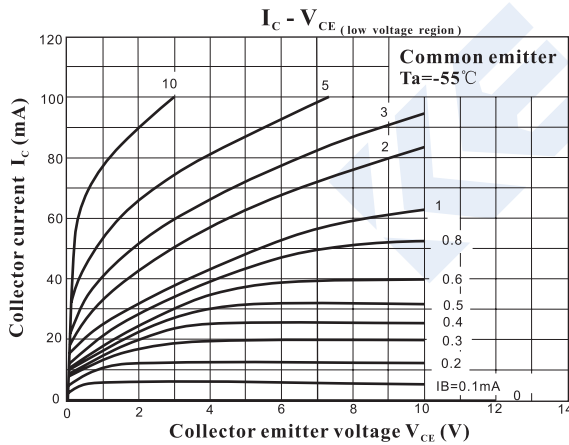
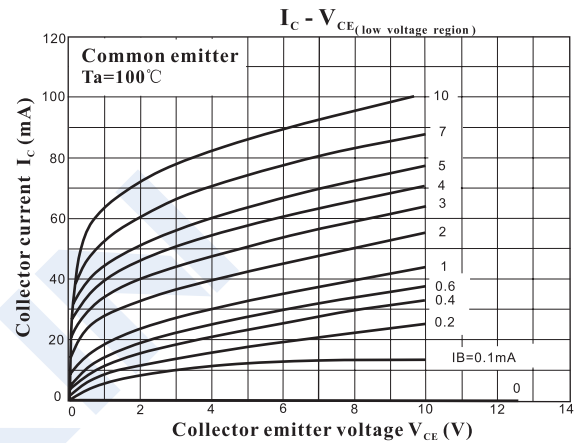
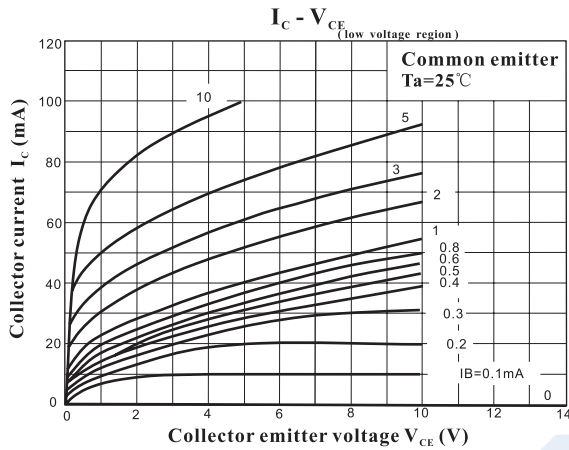
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 300V$ , $I_E = 0$			0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 6V$ , $I_C = 0$			0.1	$\mu A$
Collector-base Breakdown Voltage	$V_{(BR)CB0}$	$I_C = 0.1mA$ , $I_E = 0$	300			V
Collector-emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA$ , $I_B = 0$	300			V
DC Current Gain	$h_{FE}$	$V_{CE} = 10V$ , $I_C = 20mA$	30		150	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 20mA$ , $I_B = 2mA$			0.5	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 20mA$ , $I_B = 2mA$			1	V
Transition Frequency	$f_T$	$V_{CE} = 10V$ , $I_C = 20mA$	50	80		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 20V$ , $I_E = 0$ , $f = 1MHz$		3	4	pF

# 2SC3515

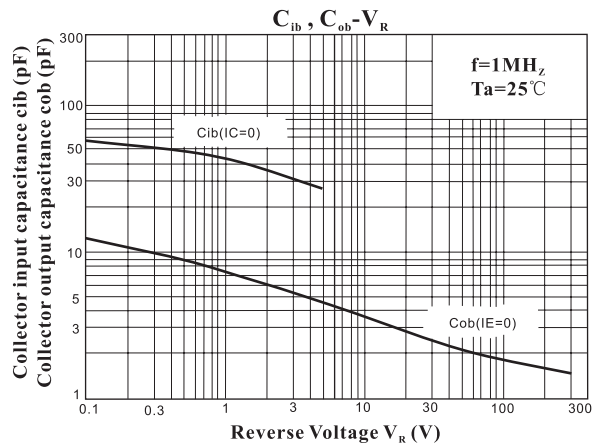
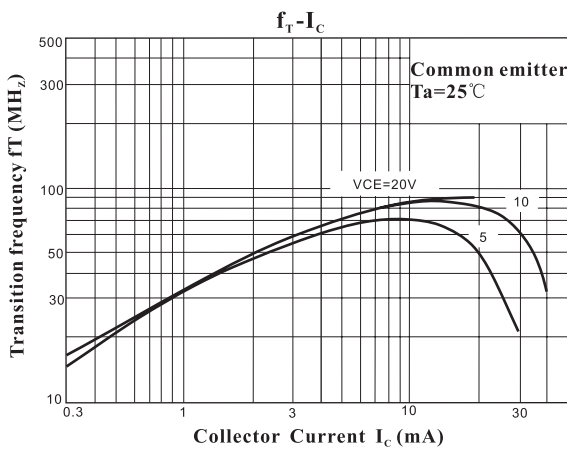
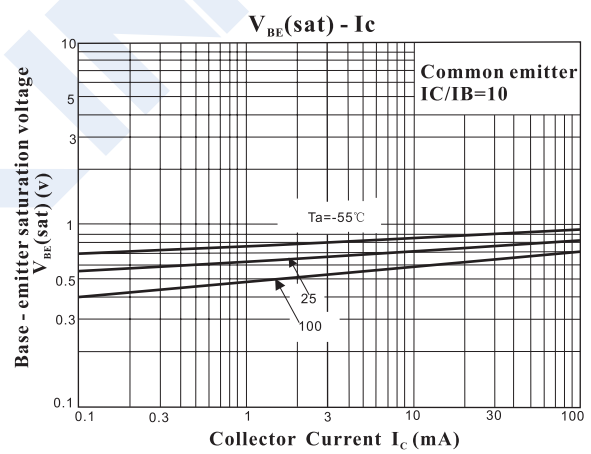
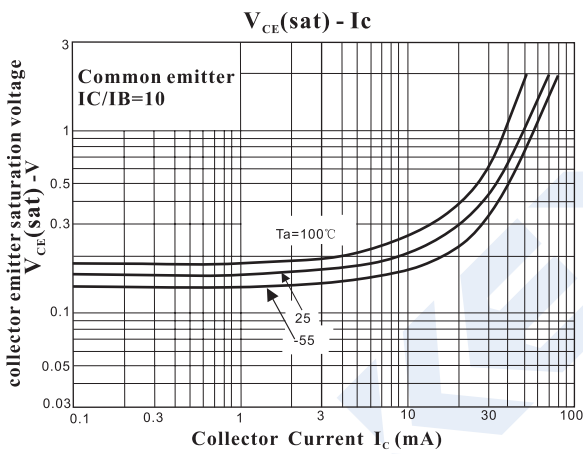
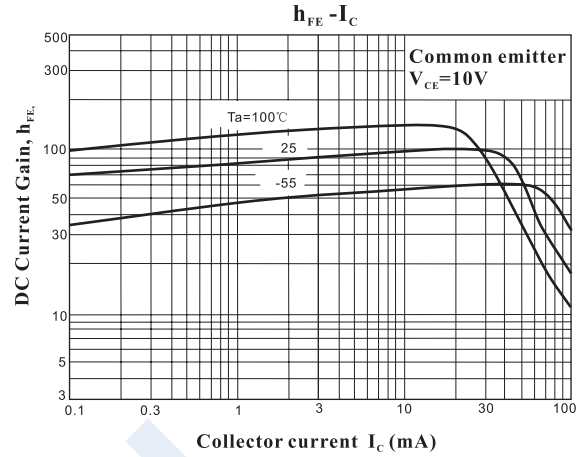
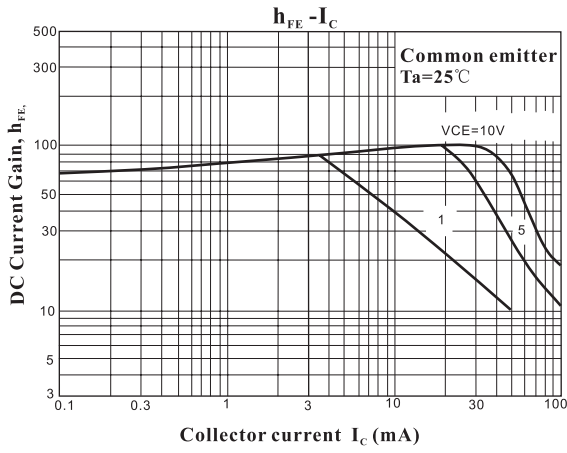
## hFE Classification

Marking	I	
Rank	R	O
hFE	30 ~ 90	50 ~ 150

## Electrical Characteristics Curves



2SC3515



2SC3515

