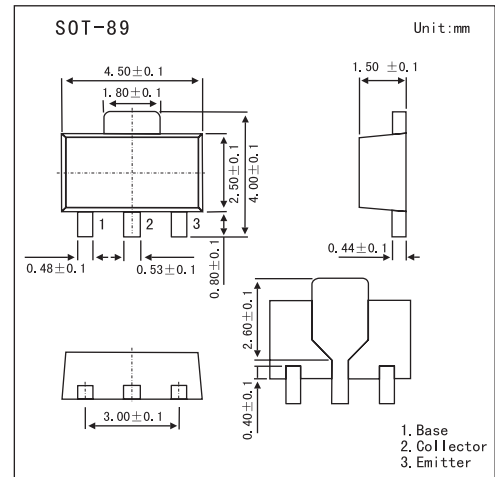


High Voltage Control Applications

2SC3515

■ Features

- High Voltage: $V_{CBO} = 300V$, $V_{CEO} = 300V$
- 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_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	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 $T_a = 25^\circ C$

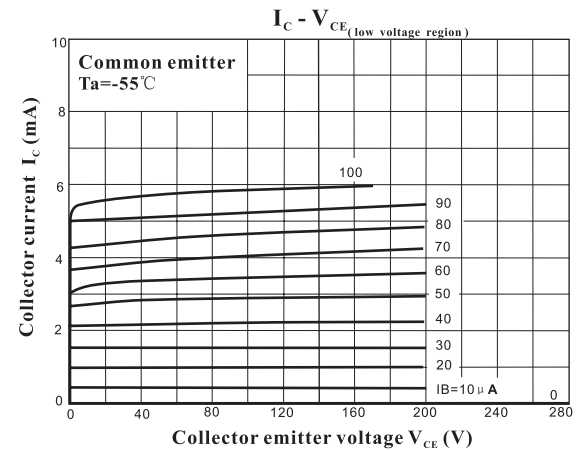
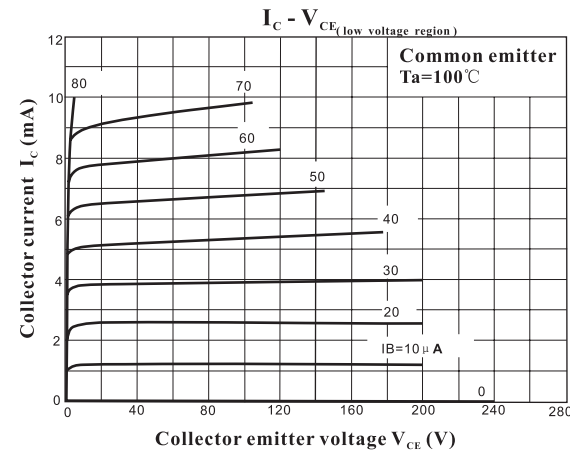
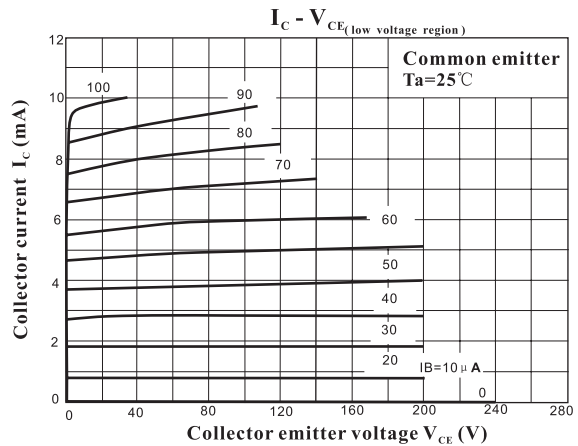
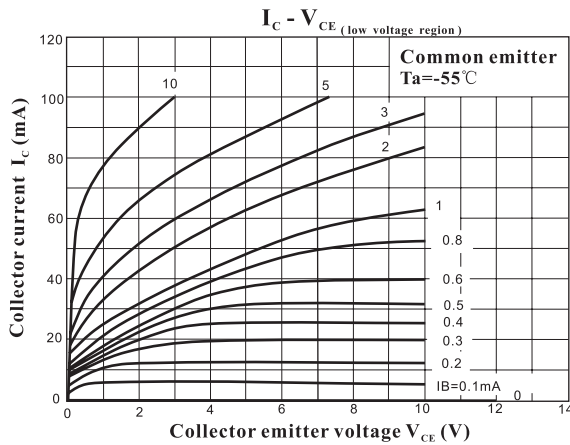
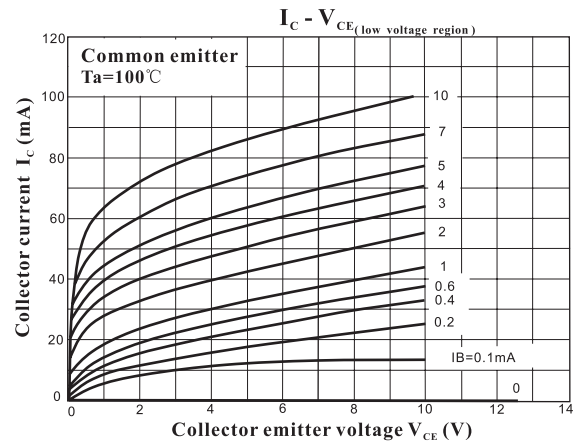
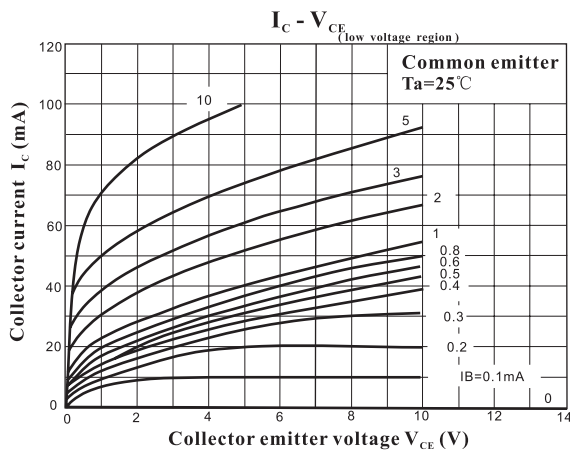
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB} = 300V$, $I_E = 0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 6V$, $I_C = 0$			0.1	μA
Collector-base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 0.1mA$, $I_E = 0$	300			V
Collector-emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA$, $I_B = 0$	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

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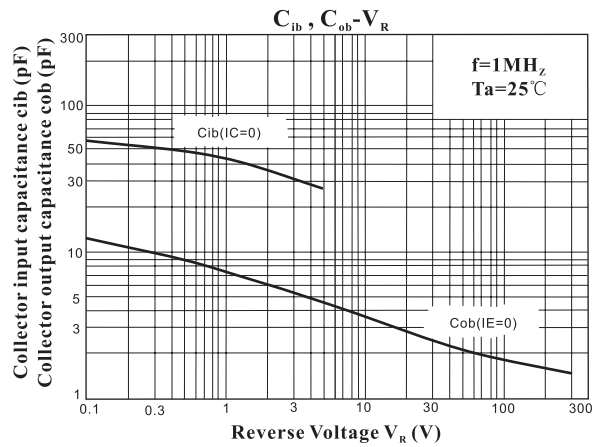
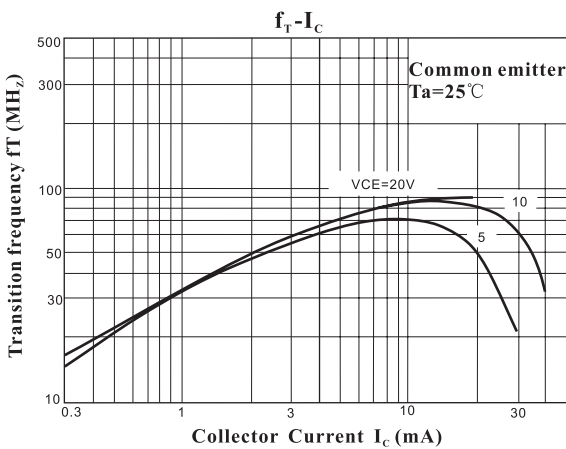
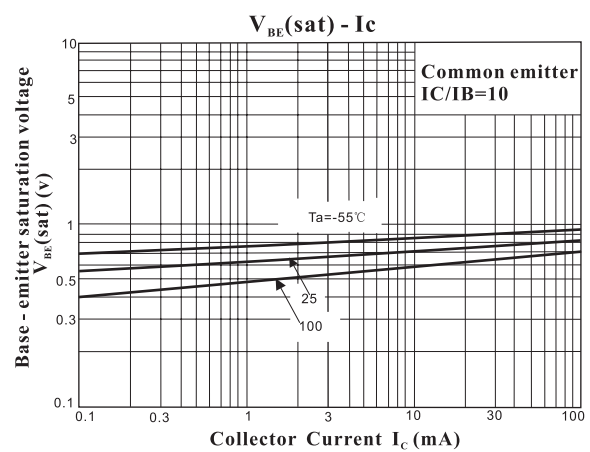
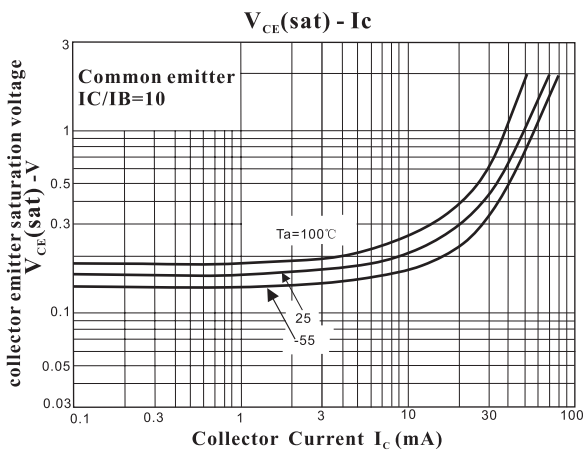
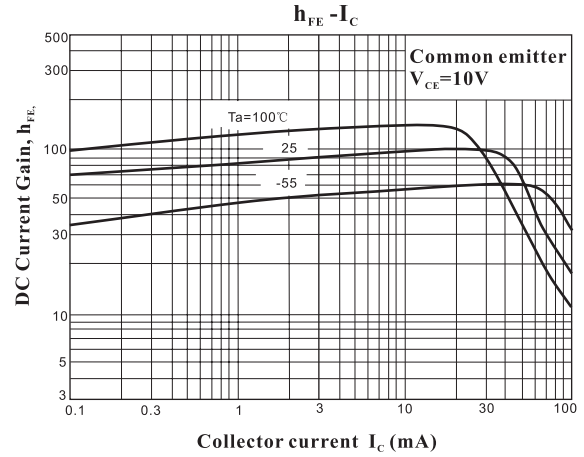
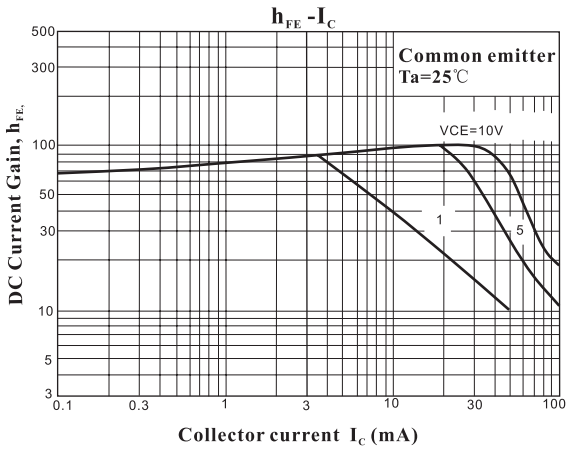
hFE Classification

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

Electrical Characteristics Curves



2SC3515



2SC3515

