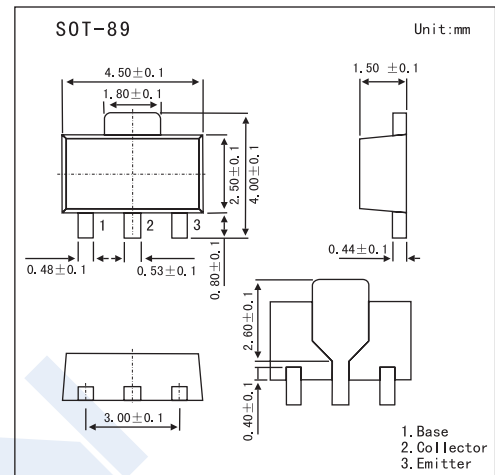


High Voltage Control Applications

2SA1384

■ Features

- High Voltage: $V_{CB0} = -300V$, $V_{CE0} = -300V$
- Low Saturation Voltage: $V_{CE(sat)} = -0.5V$ (max)
- Small Collector Output Capacitance: $C_{ob} = 6pF$
- $P_c = 1$ to $2W$ (mounted on ceramic substrate)
- Small Flat Package
- Complementary to 2SC3515

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-300	V
Collector-Emitter Voltage	V_{CE0}	-300	V
Emitter-Base Voltage	V_{EB0}	-8	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	$^\circ C$

* 2SA1384 mounted on ceramic substrate ($250\text{ mm}^2 \times 0.8\text{ t}$)

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

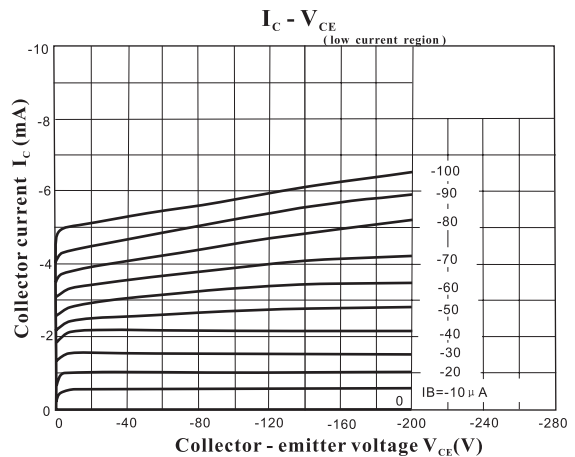
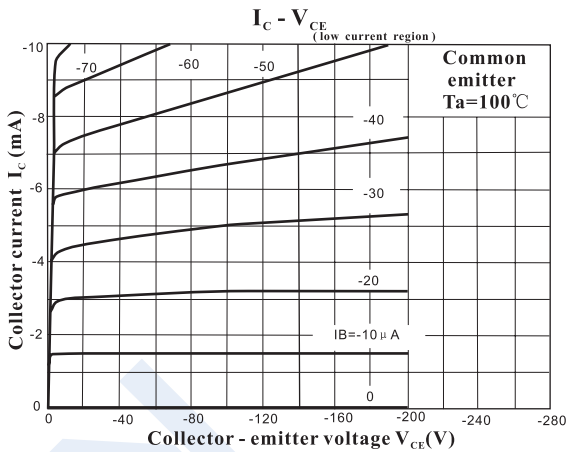
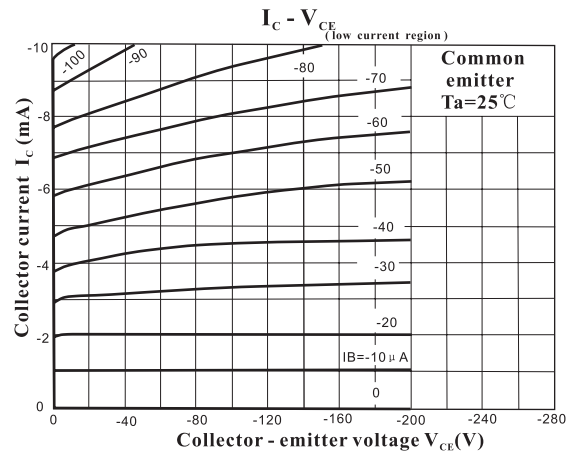
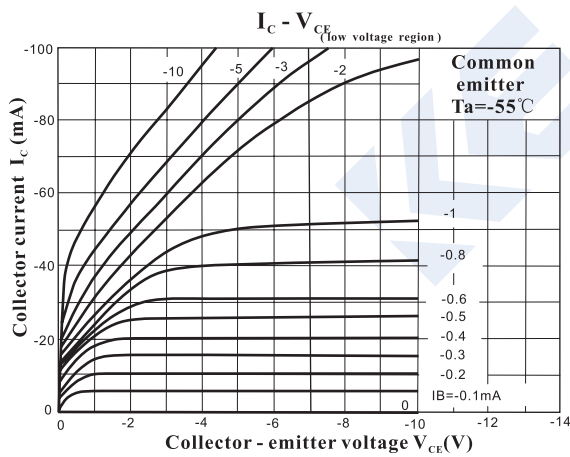
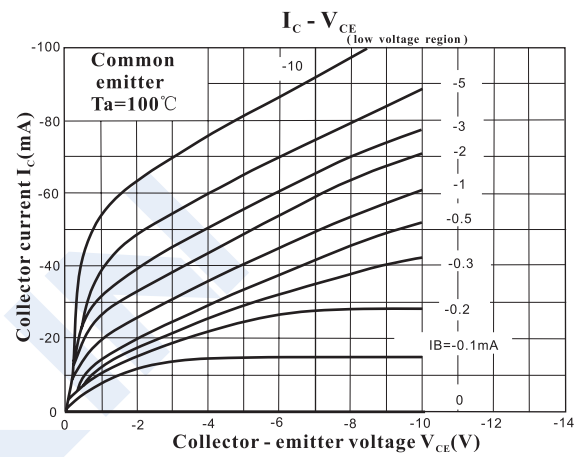
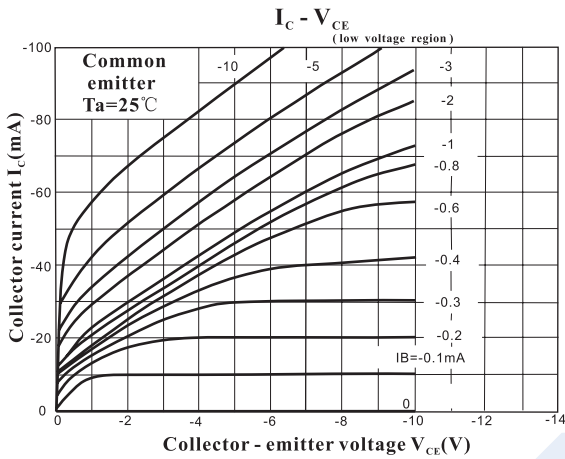
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CB0}	$V_{CB} = -300V$, $I_E = 0$			-0.1	μA
Emitter Cut-off Current	I_{EB0}	$V_{EB} = -8V$, $I_C = 0$			-0.1	μA
Collector-base Breakdown Voltage	$V_{(BR)CB0}$	$I_C = -0.1mA$, $I_E = 0$	-300			V
Collector-emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C = -1mA$, $I_B = 0$	-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	$V_{BE(sat)}$	$I_C = -20mA$, $I_B = -2mA$			-1.0	V
Transition Frequency	f_T	$V_{CE} = -10V$, $I_C = -20mA$	50	70		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -20V$, $I_E = 0$, $f = 1MHz$		6	8	pF

2SA1384

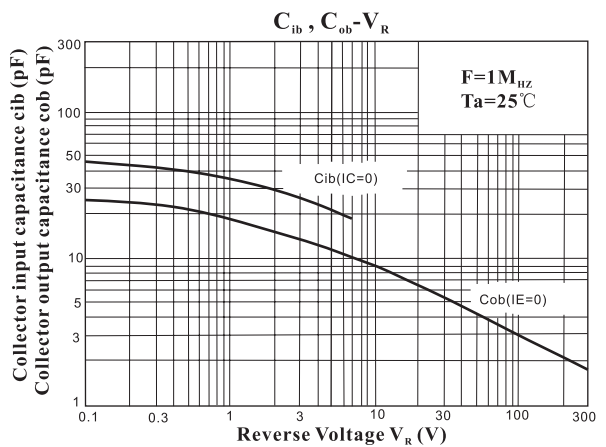
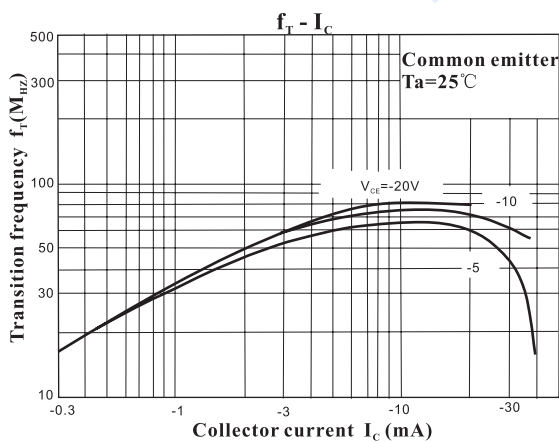
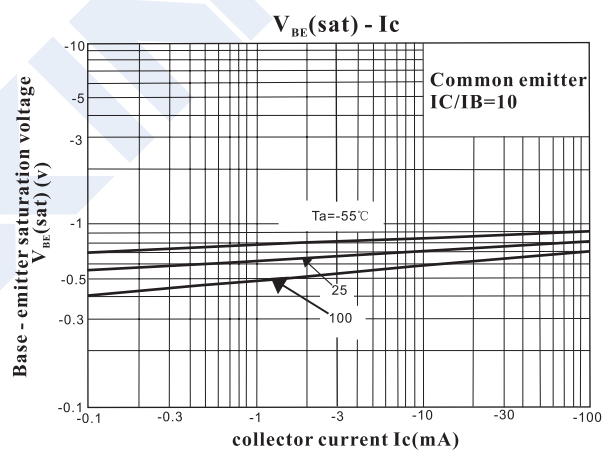
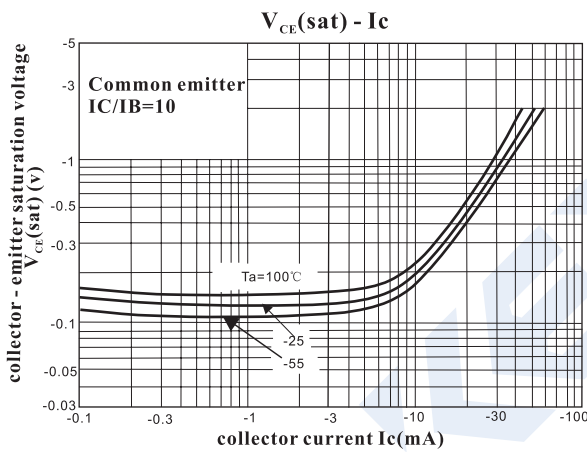
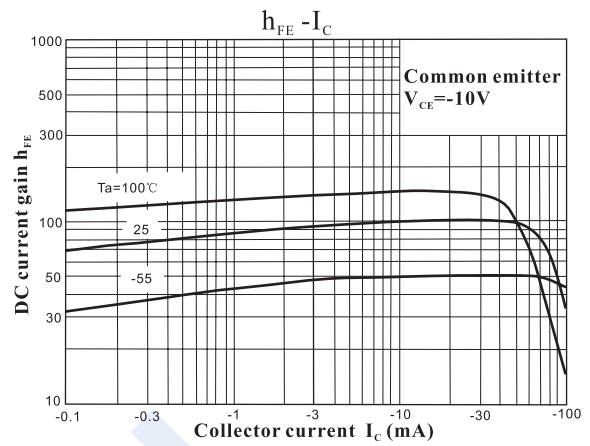
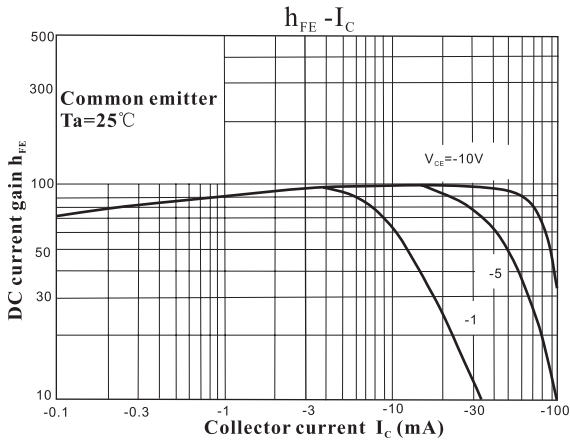
hFE Classification

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

Electrical Characteristics Curves



2SA1384



2SA1384

