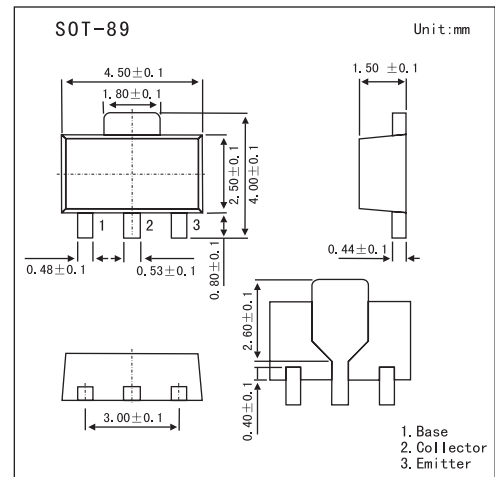


## High Voltage Drive Applications

## 2SA1368

## ■ Features

- High Voltage  $V_{CE0} = -100V$
- High Collector Current ( $I_{CM} = -800mA$ )
- High Collector Dissipation  $P_c = 500mW$
- Small Package For Mounting
- Complementary to 2SC3438

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	-100	V
Collector-Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_c$	-500	mA
Peak Collector Current	$I_{CM}$	-800	mA
Collector Power Dissipation	$P_c$	500	mW
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature Range	$T_{stg}$	-55 to +150	$^\circ C$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$			-0.5	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -2V, I_C = 0$			-0.5	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-100			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-100			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
DC Current Gain	$h_{FE}$	$V_{CE} = -10V, I_C = -10mA$	55		300	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -150mA, I_B = -15mA$		-0.15	-0.5	V
Transition Frequency	$f_T$	$V_{CE} = -10V, I_E = 10mA$		130		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		11		pF

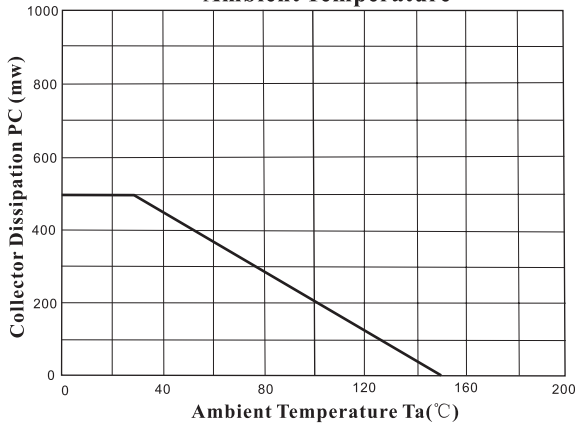
■  $h_{FE}$  Classification

Marking	E		
	C	D	E
$h_{FE}$	55 ~ 110	90 ~ 180	150 ~ 300

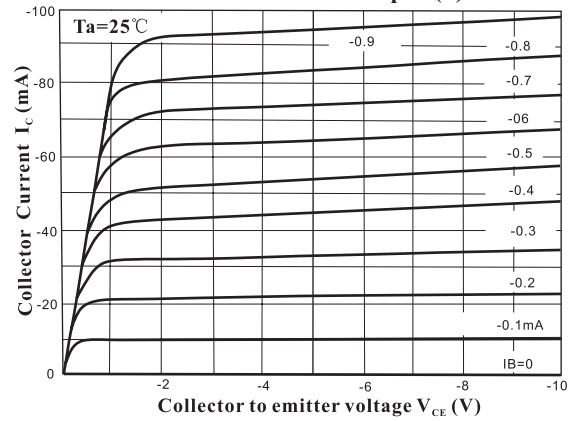
## 2SA1368

### Electrical Characteristics Curves

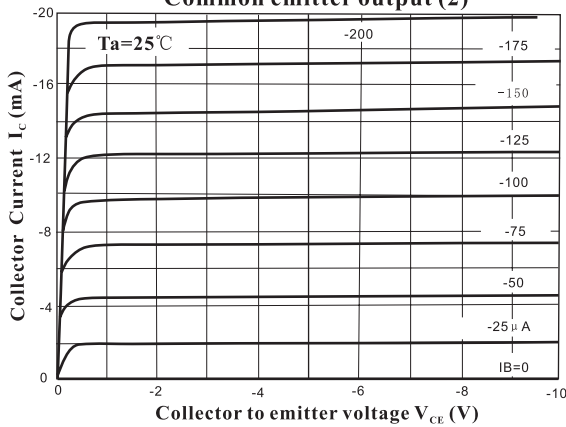
Collector Dissipation vs Ambient Temperature



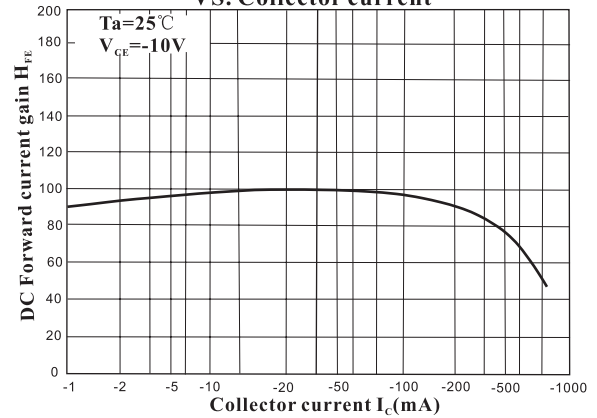
Common emitter output (1)



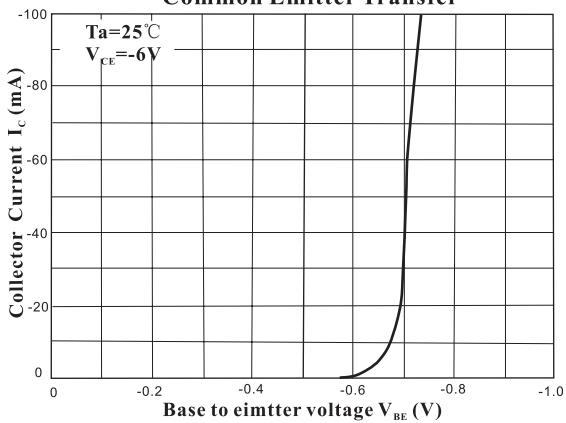
Common emitter output (2)



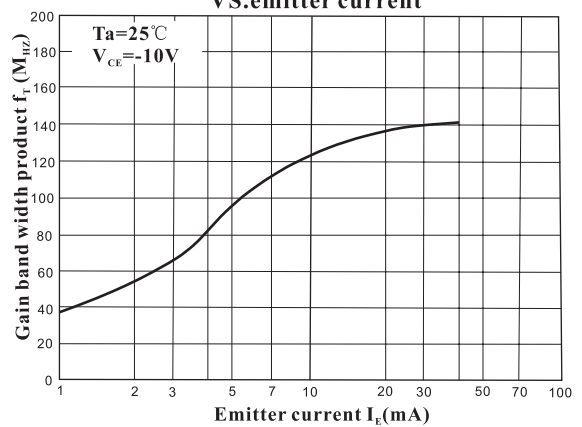
DC Forward current gain VS. Collector current



Common Emitter Transfer



Gain band width product VS. emitter current



## 2SA1368

