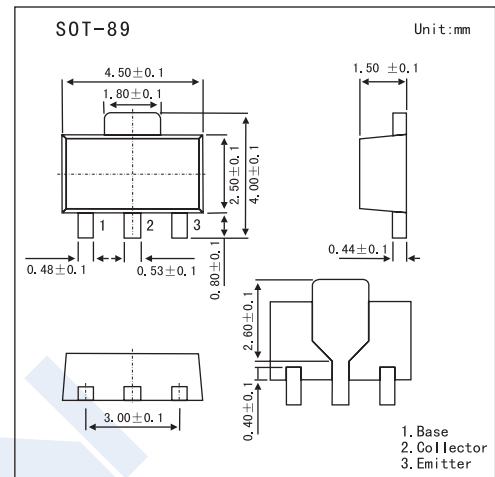


High Voltage Drive Applications

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
Jumction temperature	T_j	150	$^\circ C$
Storage temperature Range	T_{stg}	-55 to +150	$^\circ C$

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

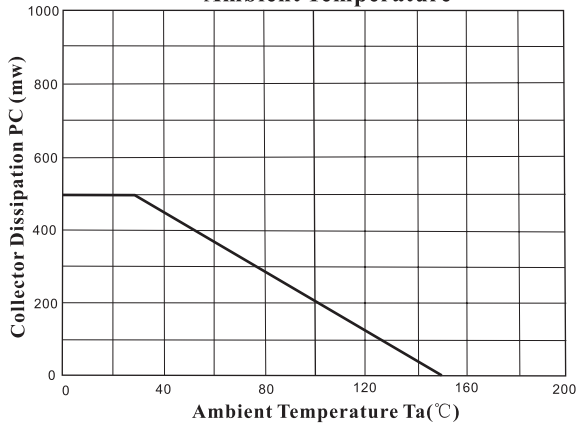
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.5	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -2V, I_C = 0$			-0.5	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-100			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-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

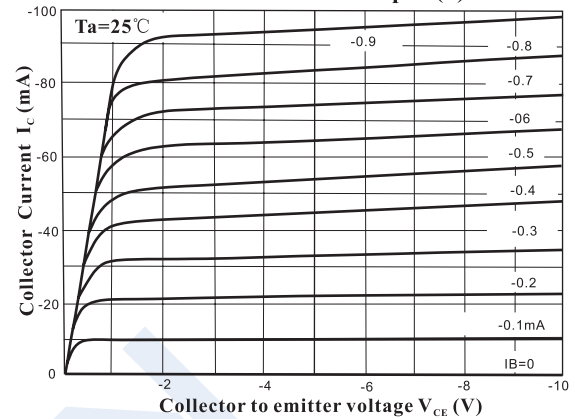
Marking	E		
Rank	C	D	E
h_{FE}	55 ~ 110	90 ~ 180	150 ~ 300

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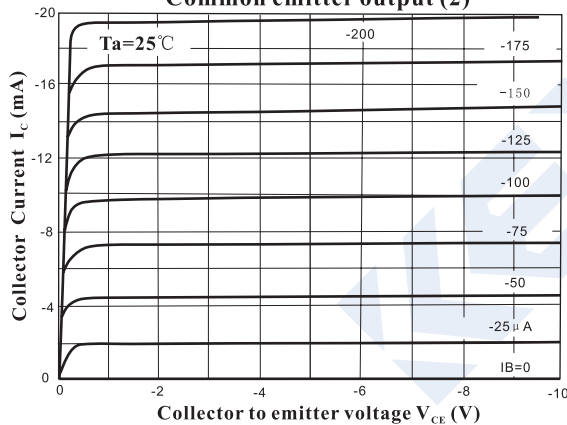
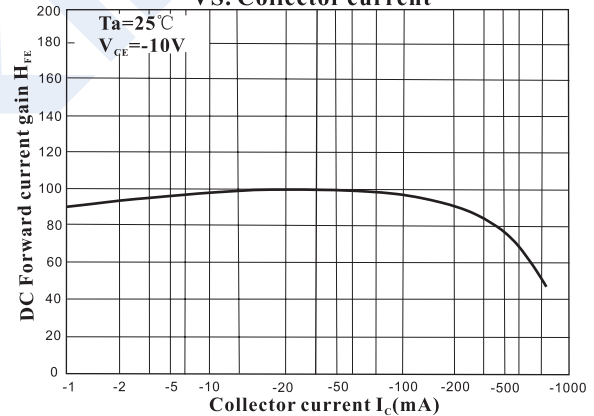
■ Electrical Characteristics Curves

Collector Dissipation vs
Ambient Temperature

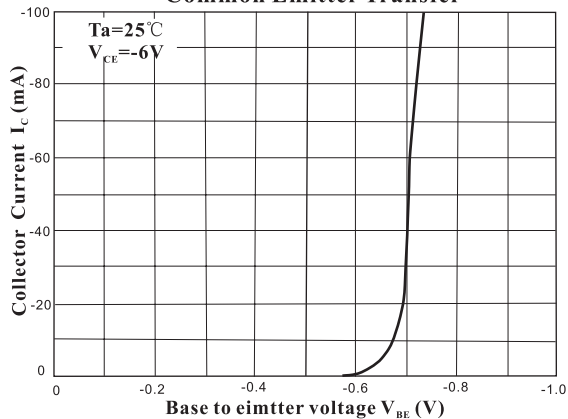
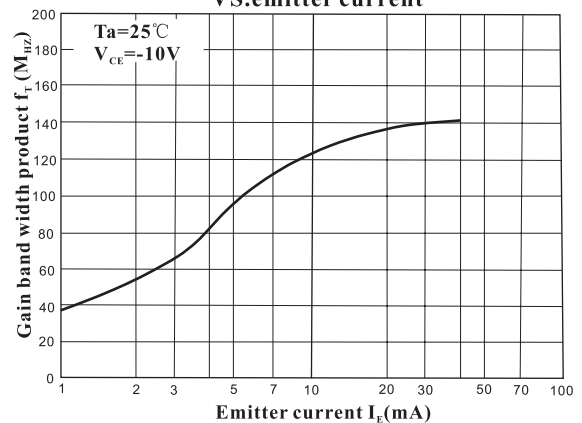
Common emitter output (1)



Common emitter output (2)

DC Forward current gain
VS. Collector current

Common Emitter Transfer

Gain band width product
VS. emitter current

2SA1368

