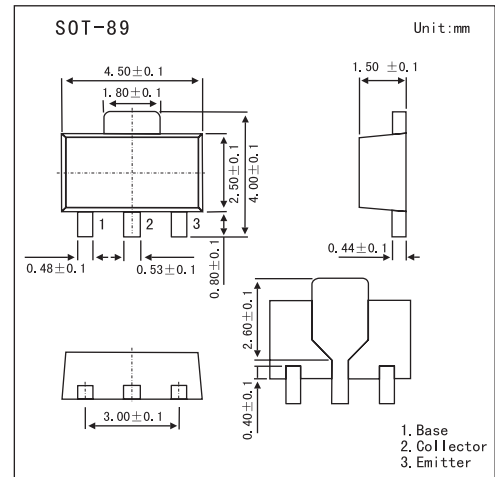


## High Current Drive Applications

## 2SA1363

## ■ Features

- High  $h_{FE}$  :  $h_{FE} = 150$  to  $800$
- High Collector Current ( $I_C = -2A$ )
- High Collector Dissipation  $P_C = 500mW$
- Small Package For Mounting
- Complementary to 2SC3443

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-20	V
Collector-Emitter Voltage	$V_{CEO}$	-16	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current	$I_C$	-2	A
Peak Collector Current	$I_{CM}$	-3	A
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	$I_{CBO}$	$V_{CB} = -16V, I_E = 0$			-0.2	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -4V, I_C = 0$			-0.2	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -2mA, R_{BE} = \infty$	-16			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-20			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-6			V
DC Current Gain	$h_{FE}$	$V_{CE} = -4V, I_C = 100mA$	150		800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -50mA$		-0.17	-0.3	V
Transition Frequency	$f_T$	$V_{CE} = -2V, I_E = 10mA$		80		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		42		pF

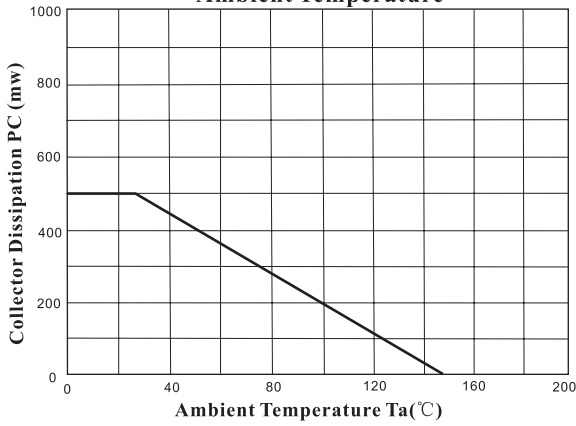
■  $h_{FE}$  Classification

Marking	A		
Rank	E	F	G
$h_{FE}$	150 ~ 300	250 ~ 500	400 ~ 800

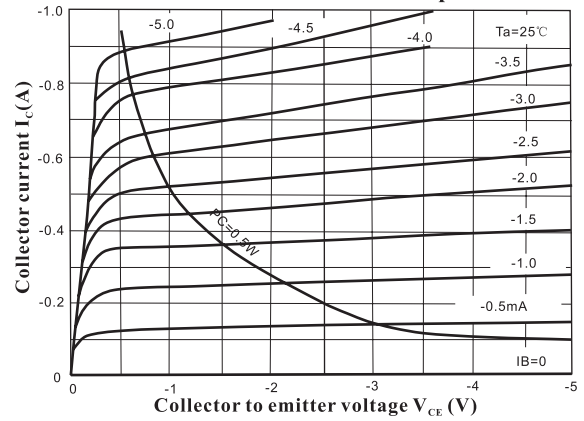
# 2SA1363

## Electrical Characteristics Curves

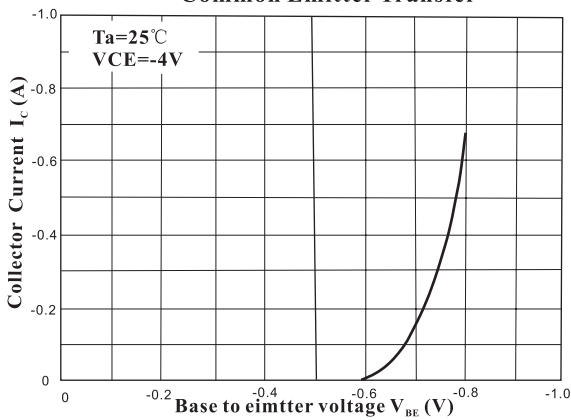
**Collector Dissipation vs Ambient Temperature**



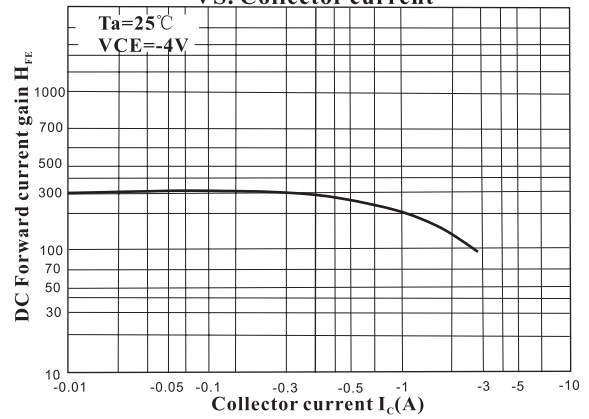
**Common emitter output**



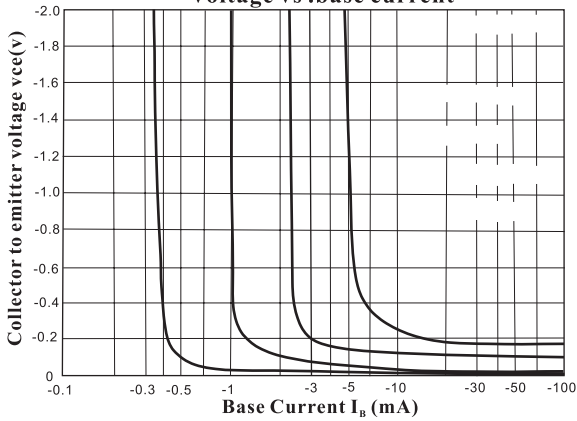
**Common Emitter Transfer**



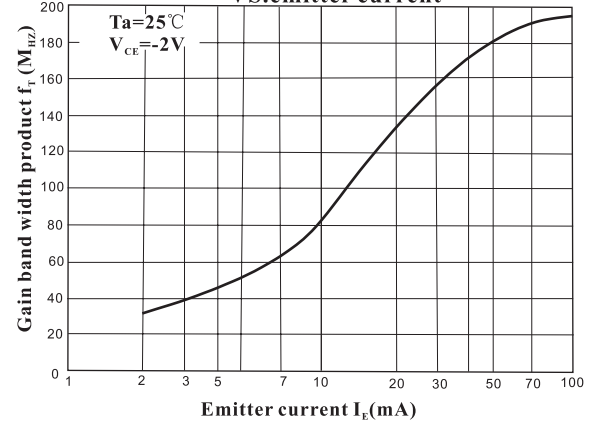
**DC Forward current gain VS. Collector current**



**Collector to emitter saturation Voltage vs. base current**



**Gain band width product VS. emitter current**



## 2SA1363

