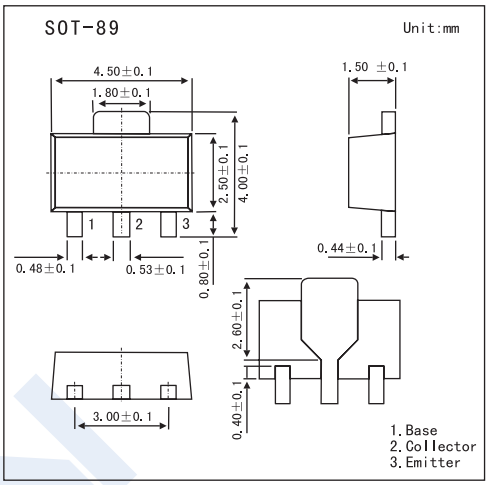
High Current Drive Applications

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 Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-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
Jumction temperature	T_j	150	℃
Storage temperature Range	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	V_{CB} = -16V , I_E = 0			-0.2	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -4V , I_C = 0			-0.2	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -2mA , R_{BE} = ∞	-16			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-20			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -10μA , 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

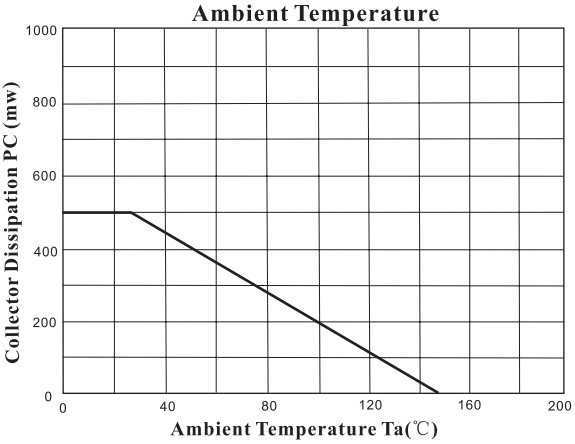
■ h_{FE} Classification

Marking	A		
Rank	E	F	G
hFE	150 ～ 300	250 ～ 500	400 ～ 800

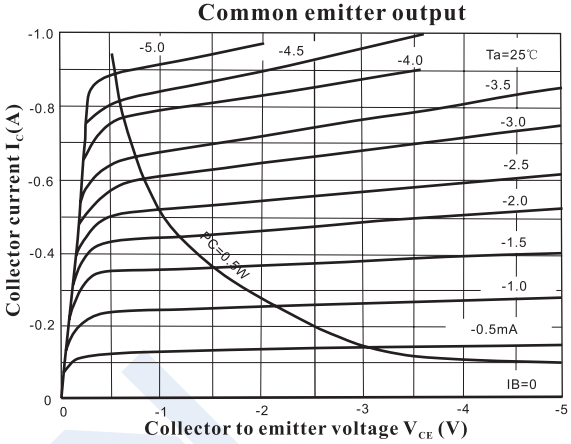
2SA1363

■ Electrical Characteristics Curves

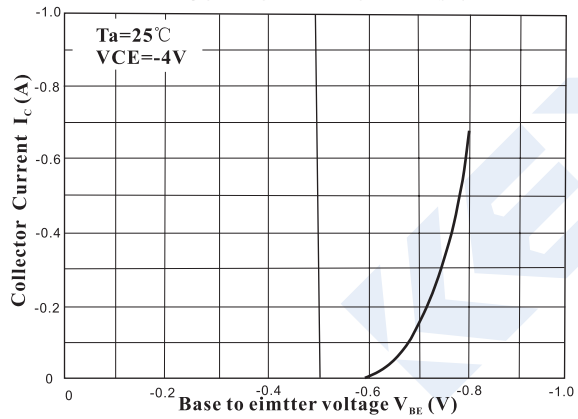
Collector Dissipation vs Ambient Temperature



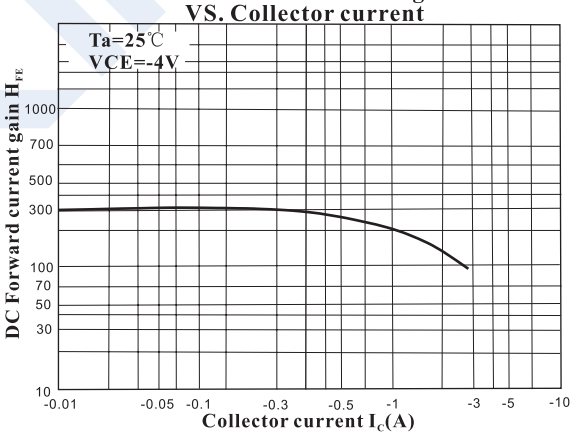
Common emitter output



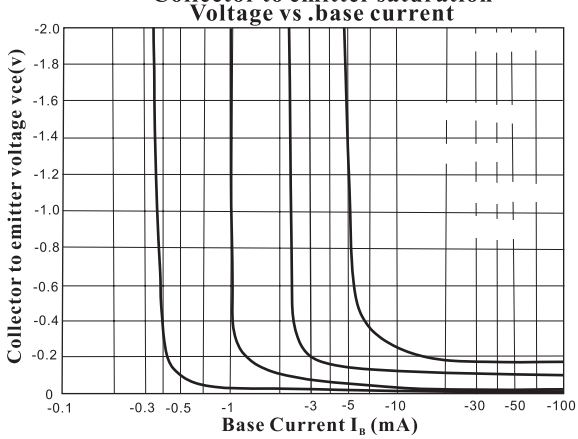
Common Emitter Transfer



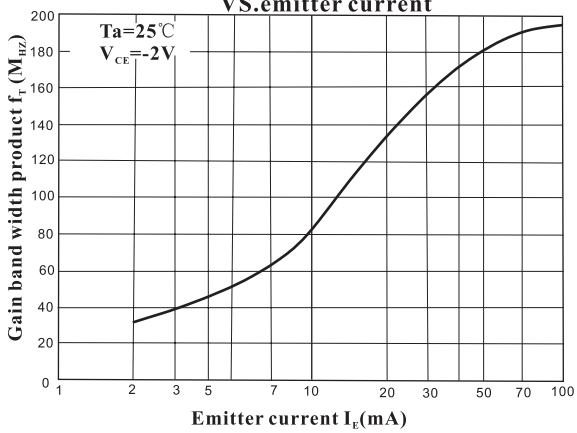
DC Forward current gain VS. Collector current



Collector to emitter saturation Voltage vs .base current



Gain band width product VS.emitter current



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