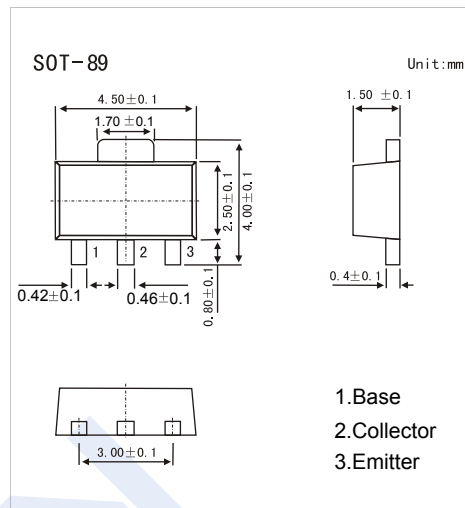


NPN Transistors

2SC3438-HF

■ Features

- High Voltage $V_{CE0} = 100V$
- High Collector Current ($I_{CM} = 800mA$)
- High Collector Dissipation $P_c = 500mW$
- Small Package For Mounting
- Complementary to 2SA1368-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

■ 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	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	500	mA
Peak Collector Current	I_{CM}	800	
Collector Power Dissipation	P_c	500	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	100			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, R_{BE} = \infty$	100			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 50 V, I_E = 0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 V, I_C = 0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 150 mA, I_B = 15 mA$		0.15	0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 150 mA, I_B = 15 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 10 V, I_C = 10 mA$	55		300	
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$		7		pF
Transition frequency	f_T	$V_{CE} = 10 V, I_C = 10 mA$		130		MHz

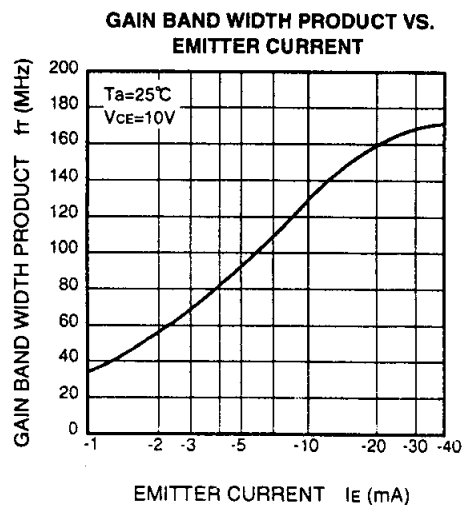
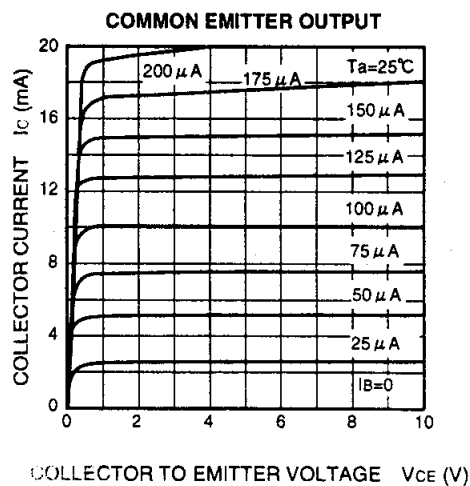
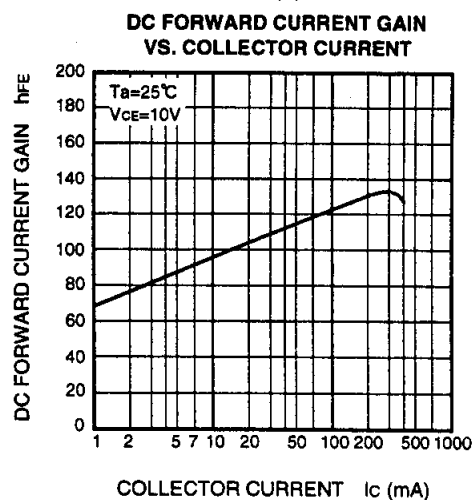
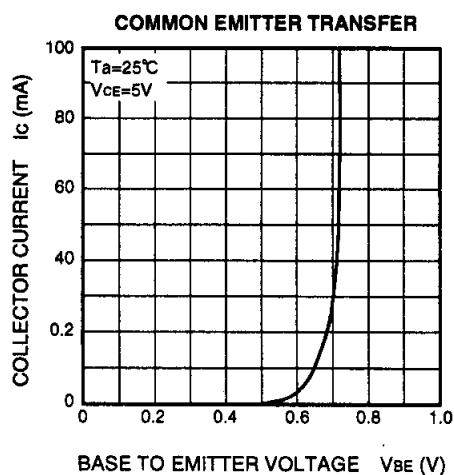
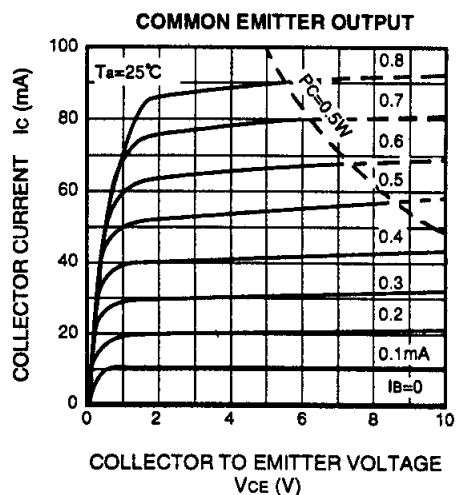
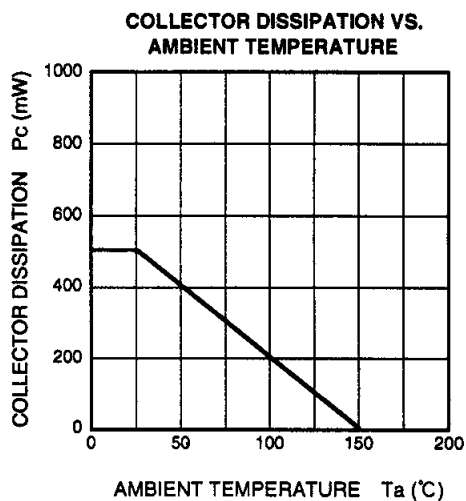
■ Classification of h_{FE}

Type	2SC3438-C-HF	2SC3438-D-HF	2SC3438-E-HF
Range	55-110	90-180	150-300
Marking	FC _F	FD _F	FE _F

NPN Transistors

2SC3438-HF

■ Typical Characteristics



NPN Transistors

2SC3438-HF

■ Typical Characteristics

