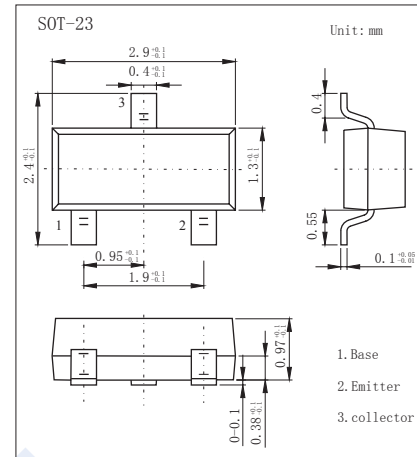


## NPN Transistors

### 2SC3360-HF

#### ■ Features

- High voltage  $V_{CE0}=200V$
- High DC Current Gain  $h_{FE}=90$  to 450
- Complementary to 2SA1330-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	$V_{CBO}$	200	V
Collector - Emitter Voltage	$V_{CEO}$	200	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_C$	200	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	$V_{CBO}$	$I_C = 100 \mu A, I_E = 0$	200			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = 1 mA, R_{BE} = \infty$	200			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu A, I_C = 0$	5			
Collector- base cut-off current	$I_{CBO}$	$V_{CB} = 200 V, I_E = 0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = 50 mA, I_B = 5 mA$		0.1	0.3	V
Base - emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = 50 mA, I_B = 5 mA$		0.8	1.2	
Base - emitter voltage *1	$V_{BE}$	$V_{CE} = 10 V, I_C = 10 mA$				
DC current gain *1	$h_{FE}$	$V_{CE} = 10 V, I_C = 10 mA$	90	200	450	
		$V_{CE} = 10 V, I_C = 50 mA$	50	200		
Turn-ON Time	$t_{on}$	$I_C = 10 mA, I_{B1} = -I_{B2} = 1 mA, V_{CC} = 10 V, V_{BE(off)} = -2.5 V$		0.15		$\mu s$
Storage Time	$t_{stg}$			1.3		
Fall Time	$t_f$			1.6		
Collector output capacitance	$C_{ob}$	$V_{CB} = 30 V, I_E = 0, f = 1 MHz$		2.8		pF
Transition frequency	$f_T$	$V_{CE} = 10 V, I_C = 10 mA$		160		MHz

\*1.pulsed:  $PW \leq 350 \mu s, Duty\ Cycle \leq 2\%$

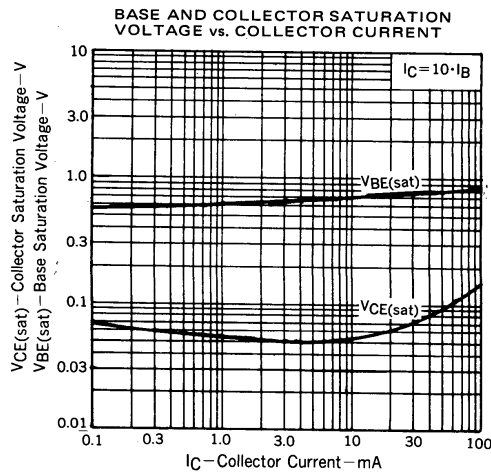
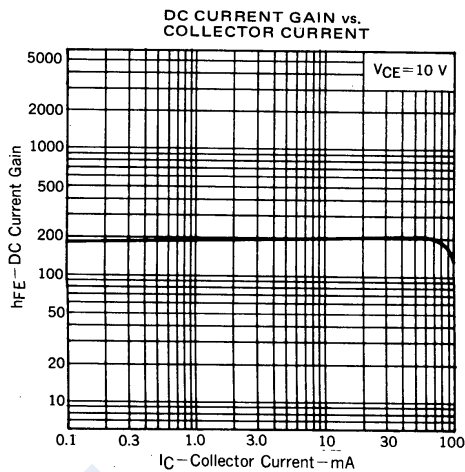
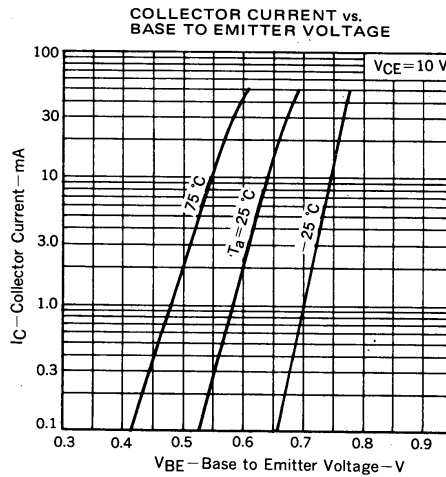
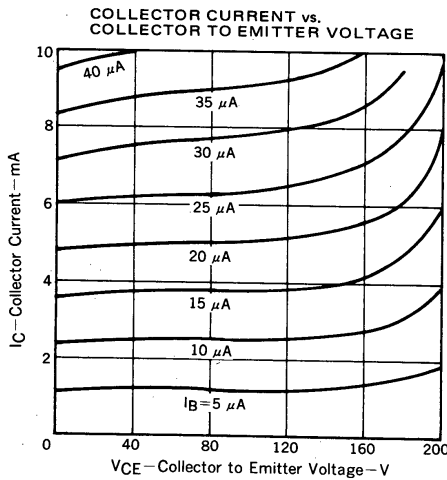
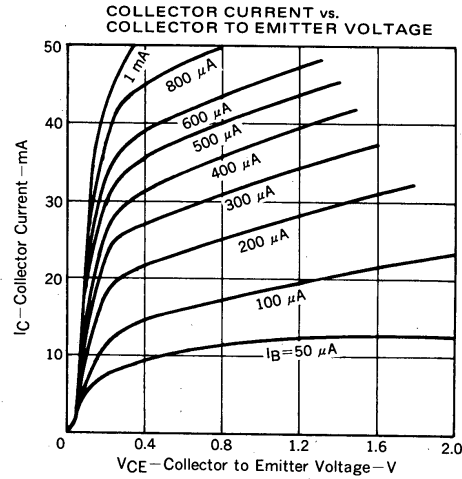
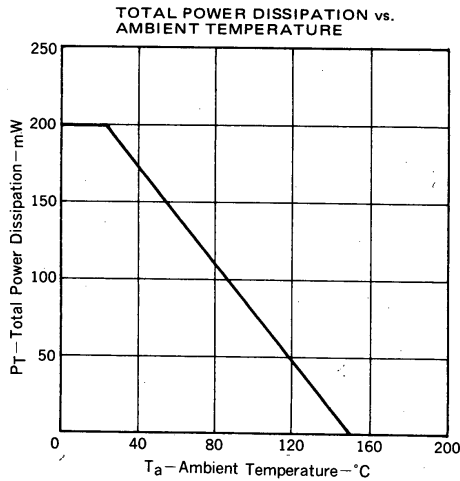
#### ■ Classification of $h_{FE}(1)$

Type	2SC3360-N15-HF	2SC3360-N16-HF	2SC3360-N17-HF
Range	90-180	135-270	200-450
Marking	N15 F	N16 F	N17 F

# NPN Transistors

## 2SC3360-HF

■ Typical Characteristics



### NPN Transistors

### 2SC3360-HF

■ Typical Characteristics

