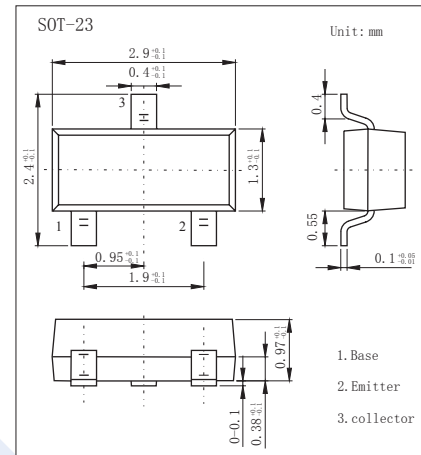


NPN Transistors

2SC2716

■ Features

- Collector Current Capability $I_c=100\text{mA}$
- Collector Emitter Voltage $V_{CE0}=30\text{V}$

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	35	V
Collector - Emitter Voltage	V_{CE0}	30	
Emitter - Base Voltage	V_{EB0}	4	
Collector Current - Continuous	I_c	100	mA
Emitter Current	I_E	-100	
Collector Power Dissipation	P_c	150	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 125	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = 100 \mu\text{A}, I_E = 0$	35			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = 1\text{mA}, I_B = 0$	30			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}, I_c = 0$	4			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 30\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4\text{V}, I_c = 0$			0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 10\text{mA}, I_B = 1\text{mA}$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 10\text{mA}, I_B = 1\text{mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 12\text{V}, I_c = 2\text{mA}$	40		240	
Noise figure	NF	$V_{CE} = 10\text{V}, I_E = -1\text{mA}, f = 1\text{MHz}, R_G = 50\Omega$			3.5	dB
Collector-base time constant	$C_{c\text{-rbb}'}$	$V_{CE} = 10\text{V}, I_E = -1\text{mA}, f = 30\text{MHz}$			50	ps
Reverse transfer capacitance	C_{re}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$			3	pF
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_c = 2\text{mA}$	80			MHz

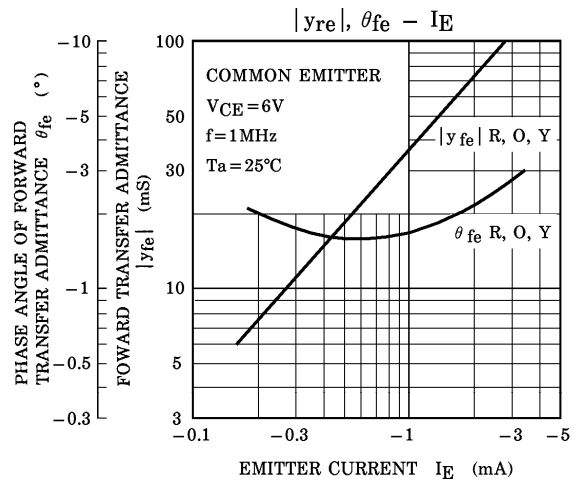
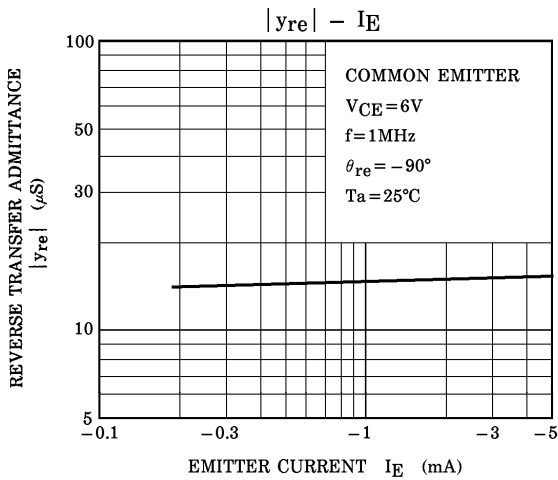
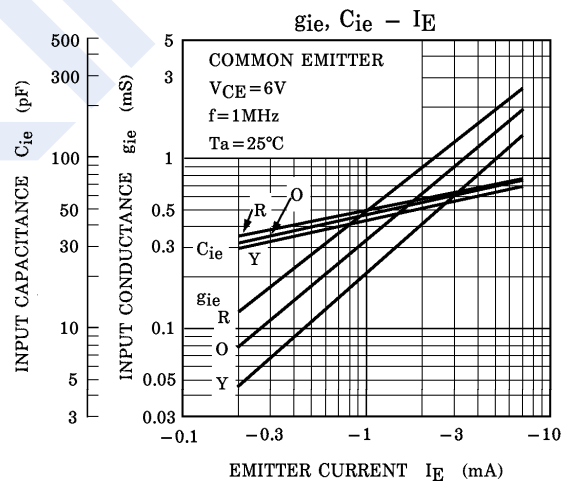
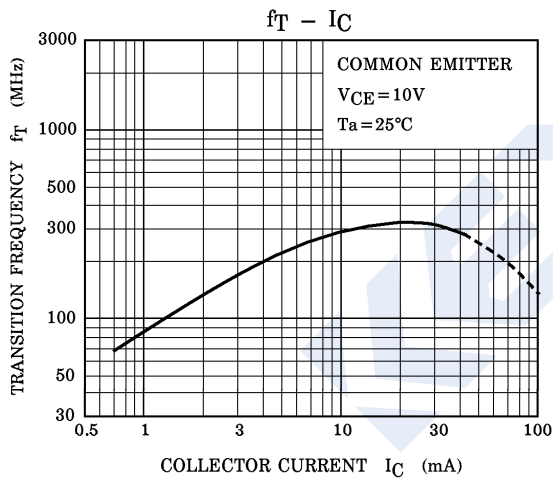
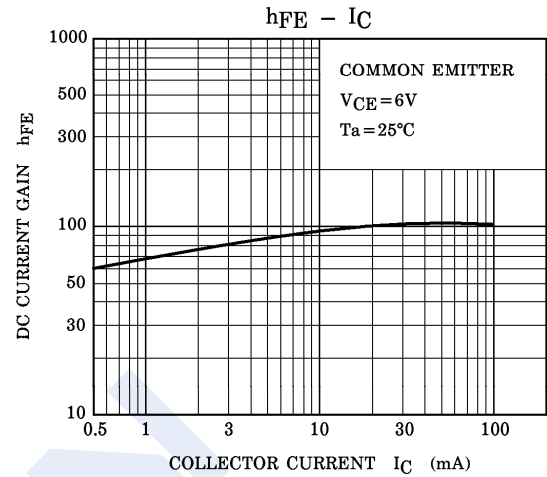
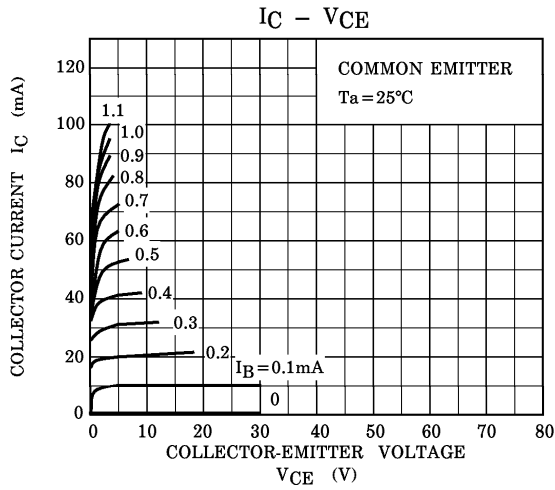
■ Classification of h_{fe}

Type	2SC2716-R	2SC2716-O	2SC2716-Y
Range	40-80	70-140	120-240
Marking	FR	FO	FY

NPN Transistors

2SC2716

■ Typical Characteristics



NPN Transistors

2SC2716

Typical Characteristics

