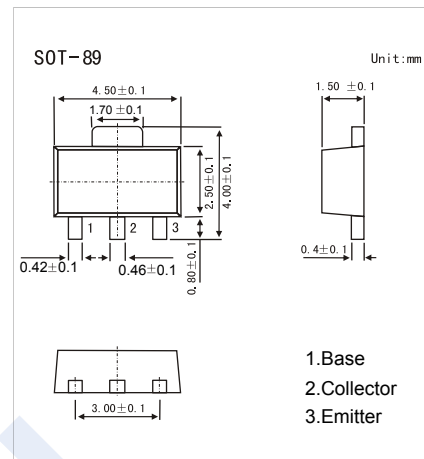


NPN Transistors

2SD1419

■ Features

- Low frequency power amplifier
- Complementary to 2SB1026

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	120	V
Collector - Emitter Voltage	V_{CE0}	100	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse (Note.1)	I_{CP}	2	
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $P_W \leq 10$ ms, Duty cycle $\leq 20\%$.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu\text{A}$, $I_E = 0$	120			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$	100			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 100 \text{ V}$, $I_E = 0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 5 \text{ V}$, $I_C = 150 \text{ mA}$			1.5	
DC current gain	h_{FE}	$V_{CE} = 5 \text{ V}$, $I_C = 150 \text{ mA}$	60		200	
		$V_{CE} = 5 \text{ V}$, $I_C = 500 \text{ mA}$	30			
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		12		pF
Transition frequency	f_T	$V_{CE} = 5 \text{ V}$, $I_C = 150 \text{ mA}$		140		MHz

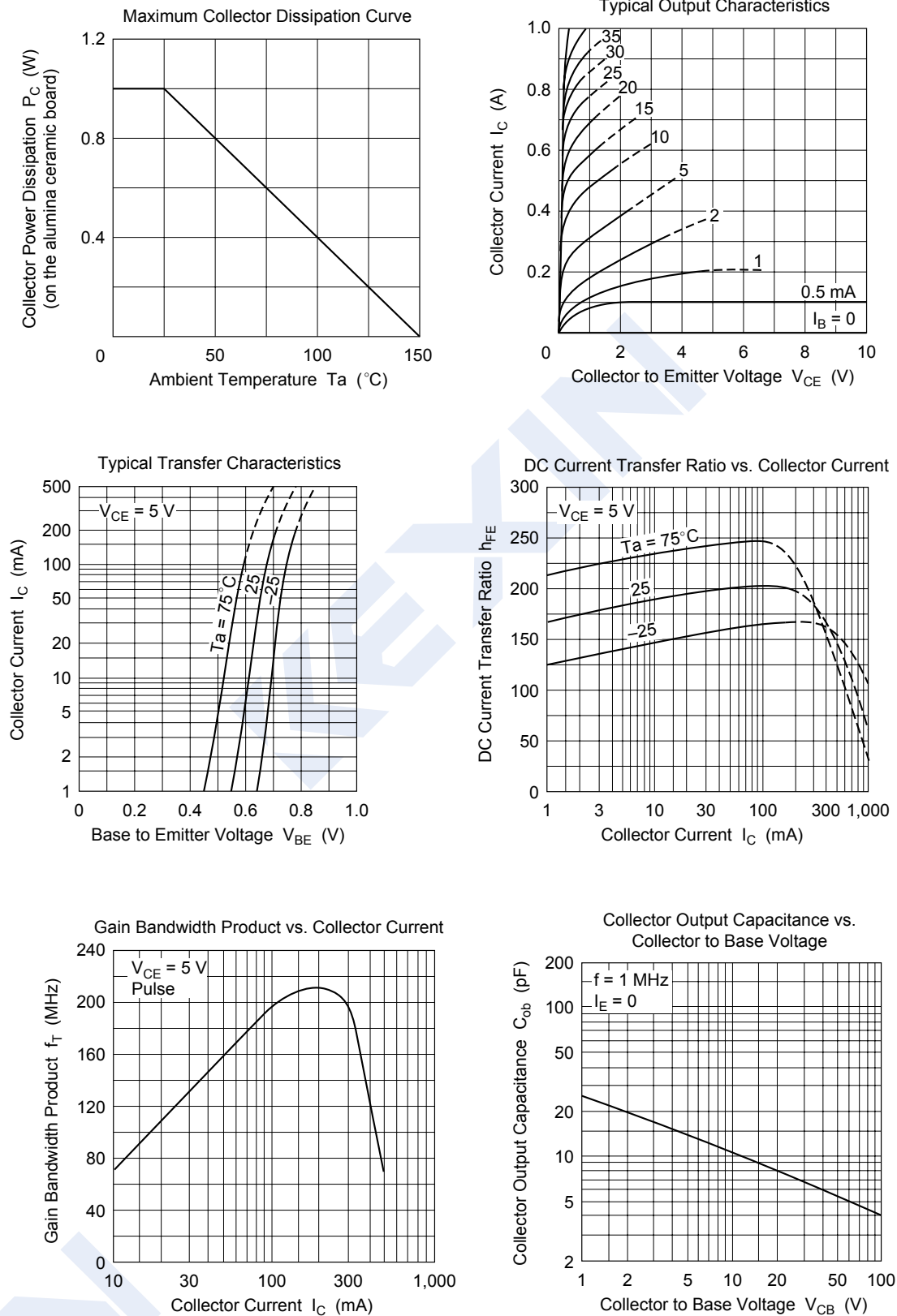
■ Classification of $h_{FE}(1)$

Type	2SD1419-D	2SD1419-E
Range	60-120	100-200
Marking	DD	DE

NPN Transistors

2SD1419

■ Typical Characteristics



NPN Transistors

2SD1419

■ Typical Characteristics

