

NPN Transistors

2SD1420

■ Features

- Collector Current Capability $I_C=1.5A$
- Collector Emitter Voltage $V_{CEO}=120V$

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	180	V
Collector - Emitter Voltage	V_{CEO}	120	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1.5	A
Collector Current - Pulse	I_{CP}	3	
Collector Power Dissipation (Note.1)	P_C	1	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

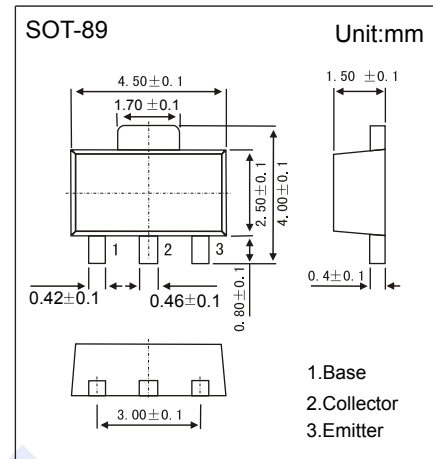
Note.1 :Value on the alumina ceramic board (12.5 x 20 x 0.7 mm)

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	180			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, R_{BE} = \infty$	120			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 160 V, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 mA, I_B = 50 mA$			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 mA, I_B = 50 mA$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 5 V, I_C = 150 mA$			0.9	
DC current gain	h_{FE}	$V_{CE} = 5 V, I_C = 150 mA$	60		320	
		$V_{CE} = 5 V, I_C = 500 mA$	30			

■ Classification of $h_{FE}(1)$

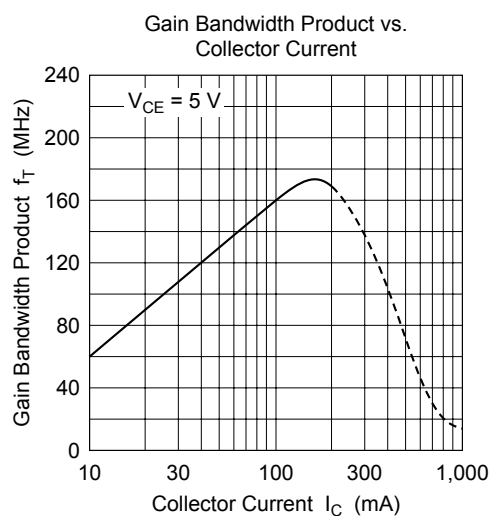
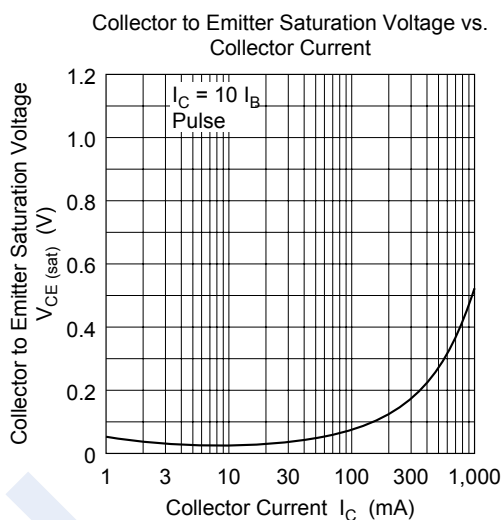
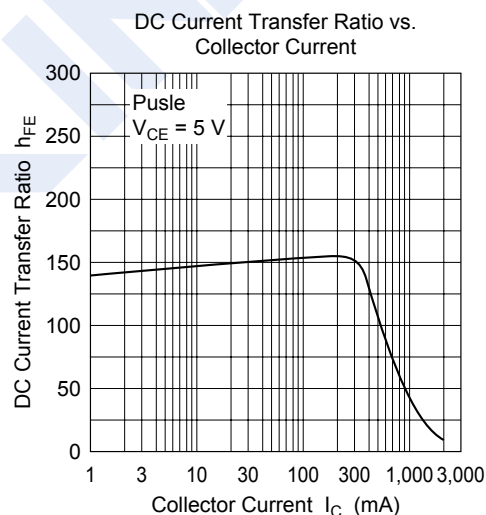
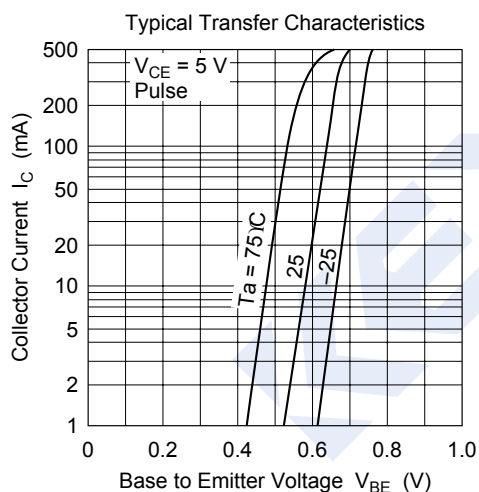
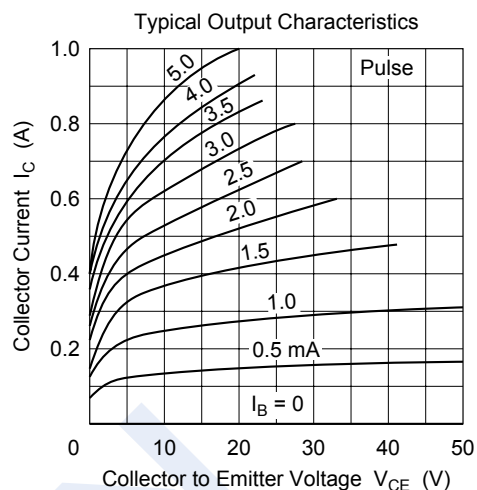
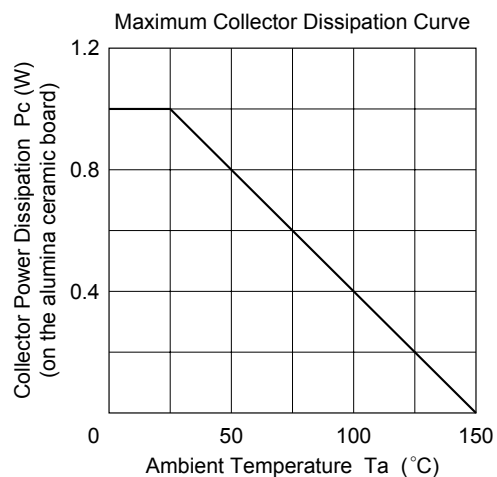
Type	2SD1420-A	2SD1420-B	2SD1420-C
Range	60-120	100-200	160-320
Marking	EA	EB	EC



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■ Typical Characteristics



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