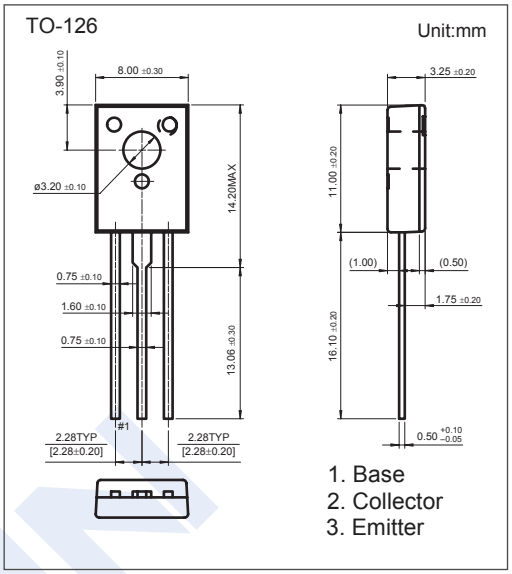
NPN Transistors

NJM13003-1.63



■ Features

- High voltage capability
- High speed switching
- Wide SOA
- ROHS compliant

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	600	V
Collector - Emitter Voltage	V_{CEO}	400	
Emitter - Base Voltage	V_{EBO}	9	
Collector Current - Continuous	I_C	1.5	A
Collector Power Dissipation	P_C	30	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 1mA, I_E= 0	600			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, I_B= 0	400			
Emitter - base breakdown voltage	V_{EBO}	I_E= 1mA, I_C= 0	9			
Collector-base cut-off current	I_{CBO}	V_{CB}= 600 V , I_E= 0			100	uA
Collector- emitter cut-off current	I_{CEO}	V_{CE}= 400 V , I_E= 0			250	
Emitter cut-off current	I_{EBO}	V_{EB}= 8V , I_C=0			10	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=0.5A, I_B=0.1A			0.35	V
		I_C=1.5A, I_B=0.5A			0.85	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=0.5A, I_B=0.1A			1.2	
DC current gain	h_{FE}	V_{CE}= 5V, I_C= 1mA	7			
		V_{CE}= 10V, I_C= 0.1A	10		40	
		V_{CE}= 5V, I_C= 1.5A	5			
Storage Time	ts	V_{CC}= 5V, I_C= 0.25A	1.5		3	us
Falling Time	tf				0.8	