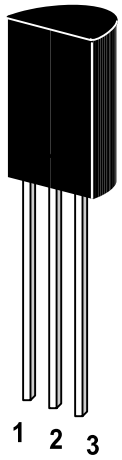
SD13002 / SD13003

NPN Silicon Epitaxial Planar Transistor
for power switching and electron rectifier applications.

These transistors are subdivided into one group according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base

TO-92L Plastic Package
Weight approx. 0.38g

Absolute Maximum Ratings ($T_a = 25^oC$)

	Symbol	Value		Unit
		13002	13003	
Collector Base Voltage	V_{CBO}	600		V
Collector Emitter Voltage	V_{CEO}	400		V
Emitter Base Voltage	V_{EBO}	9		V
Collector Current	I_C	1	1.5	A
Power Dissipation	P_{tot}	1.15	1.25	W
Junction Temperature	T_j	150		^OC
Storage Temperature Range	T_s	-55~+150		^OC

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Characteristics at T_{amb}=25 ^{O}C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE}=10V, I_C=100mA		h_{FE}	10	-	70	
Collector Base Breakdown Voltage at I_C=1mA at I_C=5mA	13002 13003	$V_{(BR)CBO}$	600	-	-	V
Collector Emitter Breakdown Voltage at I_C=5mA		$V_{(BR)CEO}$	400	-	-	V
Emitter Base Breakdown Voltage at I_E=1mA		$V_{(BR)EBO}$	9	-	-	V
Collector Cutoff Current at V_{CB}=600V at V_{CB}=700V	13002 13003	I_{CBO}	-	-	100	nA
Emitter Cutoff Current at V_{EB}=9V		I_{EBO}	-	-	100	μA
Collector Emitter Saturation Voltage at I_C=0.1A, I_B=20mA at I_C=0.5A, I_B=100mA at I_C=0.2A, I_B=40mA	 13003 13002 13003	 $V_{CE(sat)}$ $V_{CE(sat)}$ $V_{CE(sat)}$	 - - -	 - - -	 0.4 0.8 0.8	 V V V
Base-Emitter Saturation Voltage at I_C=0.1A, I_B=20mA at I_C=0.5A, I_B=100mA at I_C=0.2A, I_B=40mA	 13003 13002 13003	 $V_{BE(sat)}$ $V_{BE(sat)}$ $V_{BE(sat)}$	 - - -	 - - -	 0.9 1.2 1.1	 V V V

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