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/ Descriptions

TO-252 NPN

Silicon NPN transistor in a TO-252 Plastic Package.

/ Features

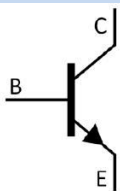
AEC-Q101

Qualified to AEC-Q101 Standards for High Reliability, HF Product.

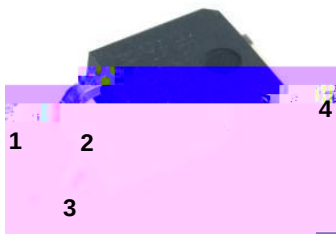
/ Applications

Relay drivers,high-speed inverters,converters,and other general high-current switching applications,
Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

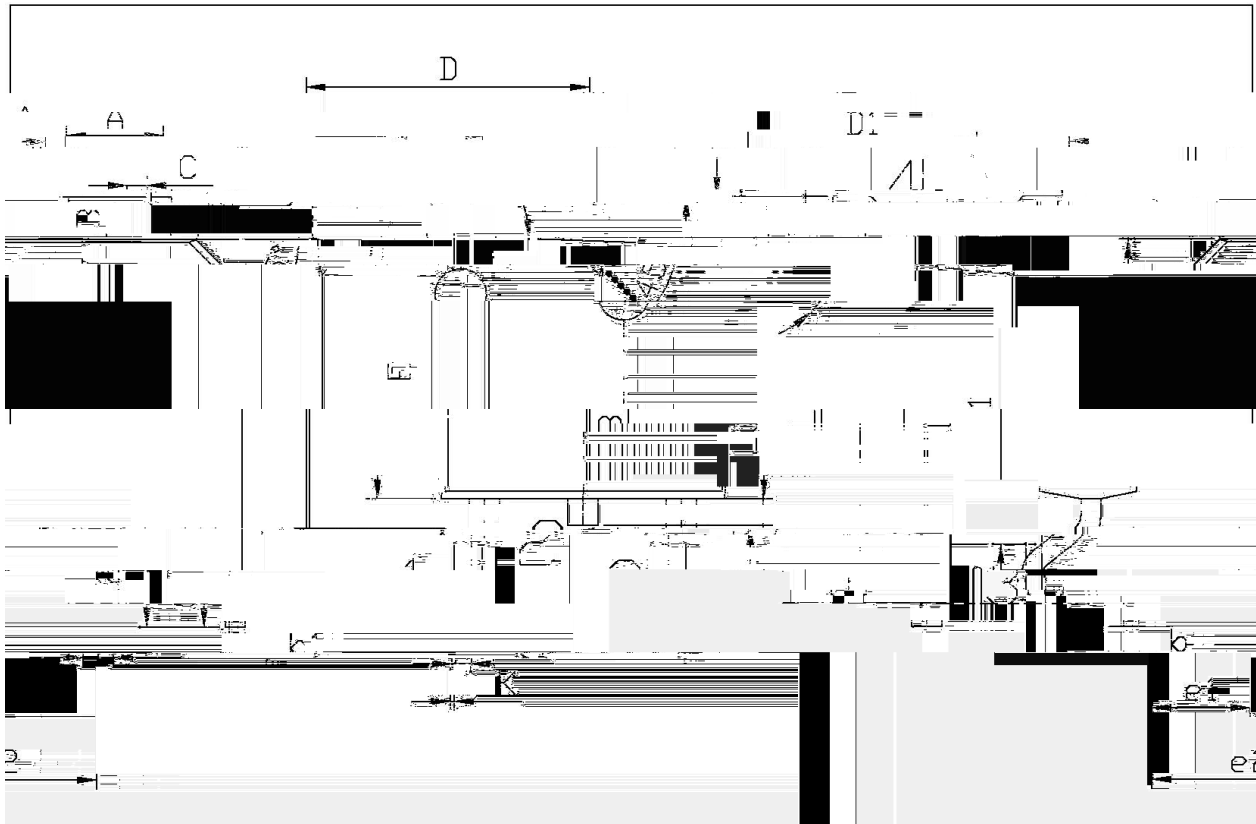
/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	Q	R	S	T
h_{FE} Range	70-140	100-200	140-280	200-400

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	3	A
Collector Current – Continuous(Pulse)	I_{CP}	6	A
Collector Power Dissipation	P_C	1	W
Collector Power Dissipation	$P_C(T_c=25^{\circ}\text{C})$	10	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu\text{A}$ $I_E=0$	120			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1\text{mA}$ $I_B=0$	100			V
Emitter to Base Breakdown Voltage	V_{EBO}	I				

/ Package Dimensions

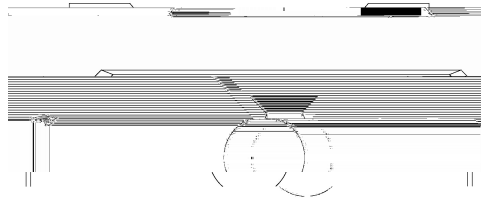
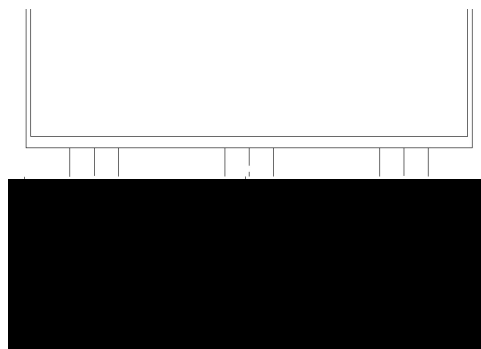


单位: mm

Dimensions in Millimeters				Dimensions in Millimeters			
Min	Max	Symbol	Min	Max	Symbol	Min	Max
0.65	0.95	A	0.65	0.95	A	0.65	0.95
4.43	4.73	C	4.43	4.73	C	4.43	4.73
0.85	1.05	D	0.85	1.05	D	0.85	1.05
0.60	0.90	D1	0.60	0.90	D1	0.60	0.90
0.00	0.10	e2	0.00	0.10	e2	0.00	0.10

TN-252

/ Marking Instructions



BR

Q

D1815

R: h_{FE}

Note:

BR: Company Code

Q: Automobile halogen-free product Code

D1815: Product Type.

R: h_{FE} Classifications Symbol

****: Lot No

