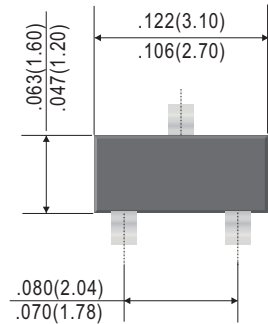


Features

- **Pb-Free package is available**
RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- Epitaxial Planar Die Construction
- Complementary NPN Types Available
- Built-In Biasing Resistors
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: E23

SOT-23

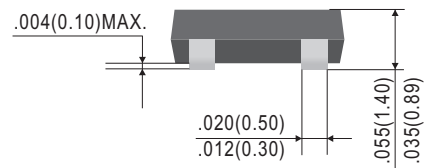
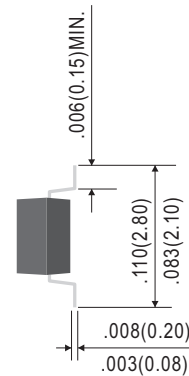


Absolute maximum ratings @ 25°C

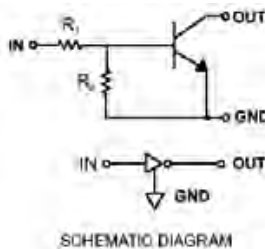
Symbol	Parameter	Min	Typ	Max	Unit
I_C	Collector current	---	100	---	mA
V_{IN}	Input voltage	-5	---	+30	V
P_d	Power dissipation	---	200	---	mW
T_j	Junction temperature	---	150	---	°C
T_{stg}	Storage temperature	-55	---	150	°C

Electrical Characteristics @ 25°C

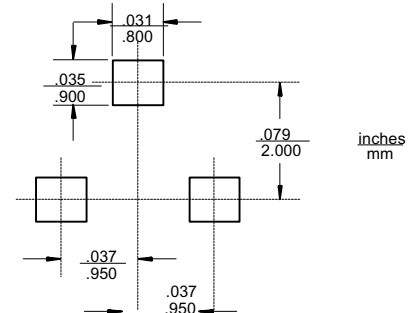
Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ($V_{CC}=5V, I_O=100\mu A$) ($V_O=0.3V, I_O=5mA$)	0.5	---	---	V
$V_{I(on)}$		---	---	1.3	V
$V_{O(on)}$	Output voltage ($I_O=5mA, I_I=0.25mA$)	---	---	0.3	V
I_I	Input current ($V_I=5V$)	---	---	1.8	mA
$I_{O(off)}$	Output current ($V_{CC}=50V, V_I=0$)	---	---	0.5	μA
G_I	DC current gain ($V_O=5V, I_O=10mA$)	80	---	---	
R_I	Input resistance	3.29	4.7	6.11	K Ω
R_2/R_1	Resistance ratio	8	10	12	
f_T	Transition frequency ($V_O=10V, I_O=5mA, f=100MHz$)	---	250	---	MHz



Dimensions in inches and (millimeters)



Suggested Solder Pad Layout



NPN Digital Transistor
Typical Characteristics
