



Micro Commercial Components

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DTC143ZCA

Digital Transistors

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- 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
- Halogen free available upon request by adding suffix "-HF"

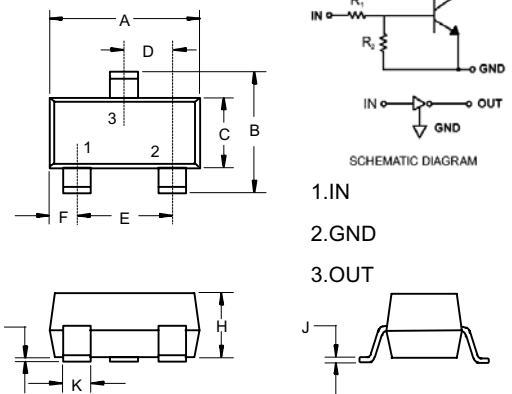
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{CC}	supply voltage	---	50	---	V
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 μ A)	0.5	---	---	V
V _{I(on)}	Input voltage (V _O =0.3V, I _O =5mA)	---	---	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	μ A
G ₁	DC current gain (V _O =5V, I _O =10mA)	80	---	---	
R ₁	Input resistance	3.29	4.7	6.11	KΩ
R ₂ /R ₁	Resistance ratio	8	10	12	
f _T	Transition frequency (V _{CE} =10V, I _E =5mA, f=100MHz)	---	250	---	MHz

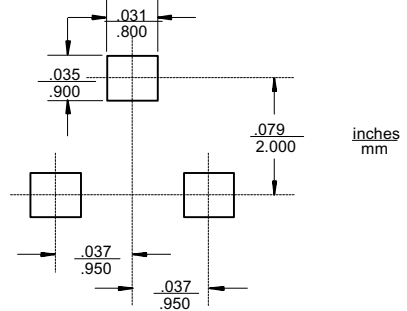
SOT-23



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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