



Micro Commercial Components



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DTC143TCA

Features

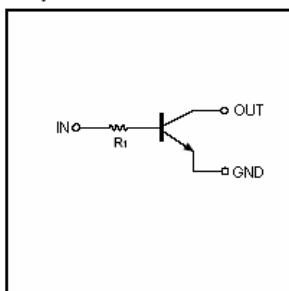
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epitaxial Planar Die Construction
- Built-In Biasing Resistors
- Marking:03
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Absolute maximum ratings @ 25°C

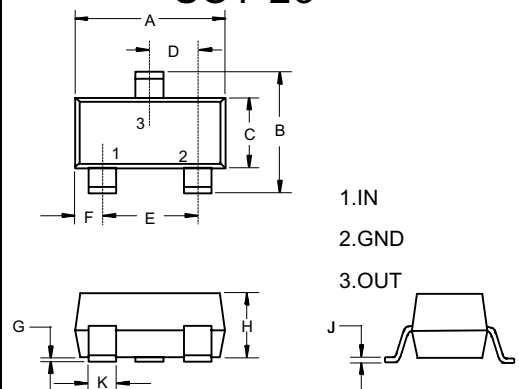
Symbol	Parameter	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-Base Voltage	50	---	---	V
$V_{(BR)CEO}$	Collector-Emitter Voltage	50	---	---	V
$V_{(BR)EBO}$	Emitter-Base Voltage	5	---	---	V
I_C	Collector current	---	100	---	mA
P_d	Power dissipation	---	200	---	mW
T_j	Junction temperature	---	150	---	°C
T_{stg}	Storage temperature	-55	---	150	°C

Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-Base Voltage ($I_C=50\mu A$)	50	---	---	V
$V_{(BR)CEO}$	Collector-Base Voltage ($I_C=1mA$)	50	---	---	V
$V_{(BR)EBO}$	Collector-Base Voltage ($I_E=50\mu A$)	5	---	---	V
I_{CBO}	Collector cut-off current ($V_{CB}=50V$)	---	---	0.5	μA
I_{EBO}	Emitter cut-off current ($V_{EB}=4V$)	---	---	0.5	μA
h_{FE}	DC current transfer ratio ($V_{CE}=5V, I_C=1mA$)	100	---	600	
R_1	Input resistance	3.29	4.7	6.11	K Ω
f_T	Transition frequency ($V_o=10V, I_o=5mA, f=100MHz$)	---	250	---	MHz
$V_{CE(sat)}$	Collector-emitter saturation voltage ($I_C=5mA, I_B=0.25mA$)	---	---	0.3	V

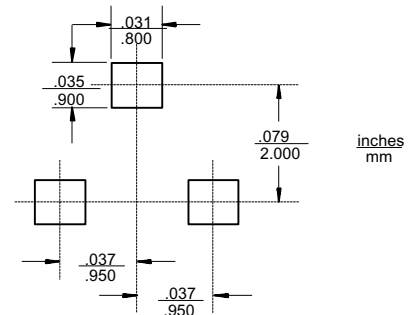


SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	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



Typical Characteristics

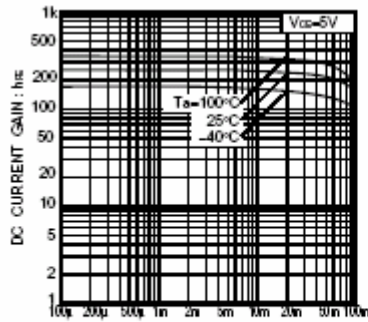


Fig.1 DC current gain vs. collector current

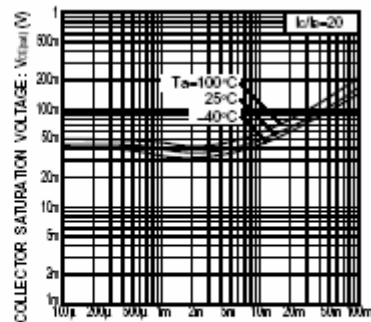


Fig.2 Collector-emitter saturation voltage vs. collector current

Ordering Information :

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

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