

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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DTC143ECA

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epitaxial Planar Die Construction
- Complementary PNP Types Available
- Built-In Biasing Resistors
- Marking: 23
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

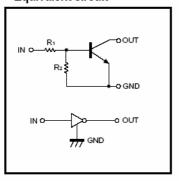
Absolute maximum ratings @ 25°

Symbol	Parameter	Min	Тур	Max	Unit
V _{CC}	Supply Voltage			50	V
Ic	Collector current		100		mA
V_{IN}	Input voltage	-10		+30	V
P_d	Power dissipation		200		mW
T _i	Junction temperature		150		$^{\circ}$
T _{stg}	Storage temperature	-55		150	$^{\circ}$

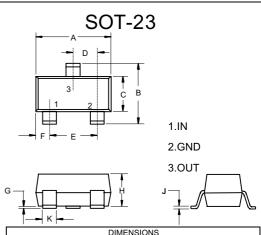
Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Тур	Max	Unit
$V_{I(off)}$	Input voltage (V _{CC} =5V, I _O =100 μ A)			0.5	V
$V_{I(on)}$	(V _o =0.3V, I _o =20mA)	3.0			V
$V_{O(on)}$	Output voltage (I _O =10mA,I _i =0.5mA)			0.3	V
l _l	Input current (V _i =5V)			1.8	mA
I _{O(off)}	Output current (V _{CC} =50V, V _I =0)			0.5	μА
Gı	DC current gain (V ₀ =5V, I ₀ =10mA)	30			
R ₁	Input resistance	3.29	4.7	6.11	$\mathbf{K}\Omega$
R ₂ /R ₁	Resistance ratio	8.0	1	1.2	
f⊤	Transition frequency (V _{CE} =10V, I _E =5mA, f=100MHz)		250		MHz

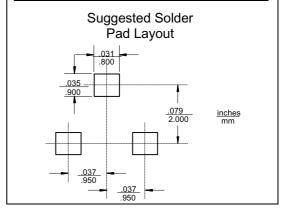
■Equivalent circuit



Digital Transistors



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



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Typical Characteristics

Electrical characteristic curves

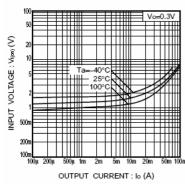


Fig.1 Input voltage vs. output current (ON characteristics)

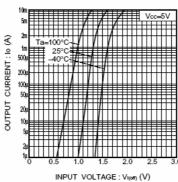


Fig.2 Output current vs. input voltage (OFF characteristics)

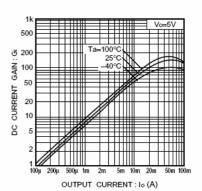


Fig.3 DC current gain vs. output current

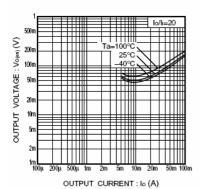


Fig.4 Output voltage vs. output current



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Ordering Information:

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

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