

# M.C.C.

Micro Commercial Components



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## DTC143ESA

## Digital Transistors

### 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
- Moisture Sensitivity Level 1
- Epoxy meets UL 94 V-0 flammability rating
- Halogen free available upon request by adding suffix "-HF"

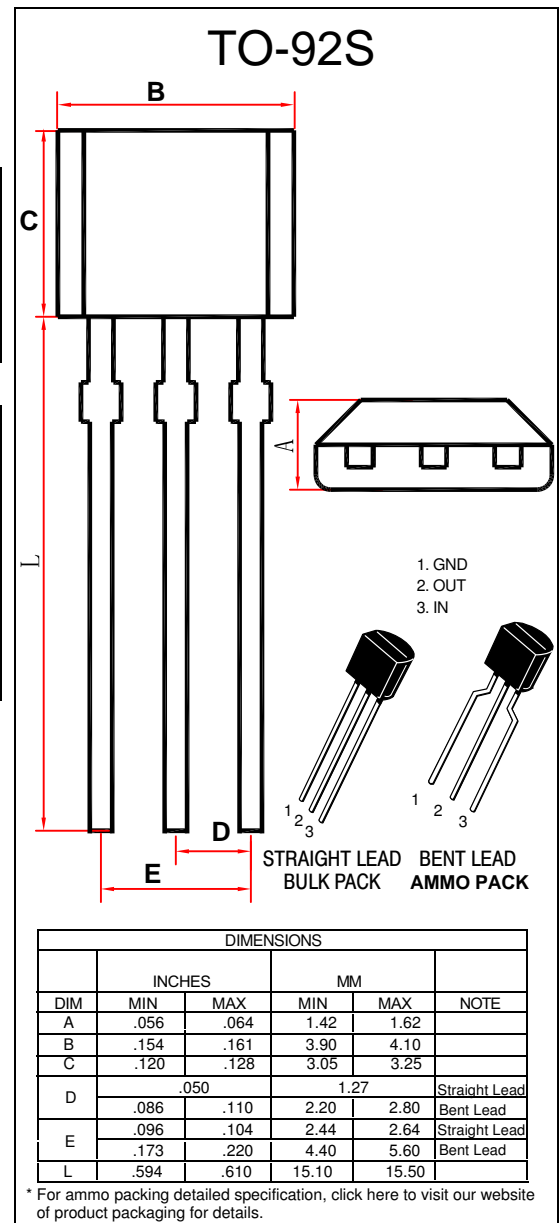
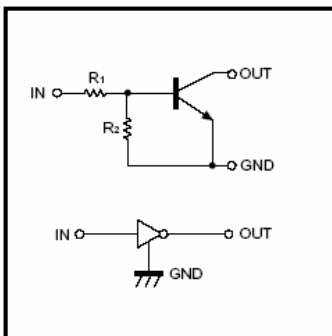
### Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
$V_{CC}$	Supply Voltage	---	---	50	V
$I_C$	Collector current	---	100	---	mA
$V_{IN}$	Input voltage	-10	---	+30	V
$P_d$	Power dissipation	---	300	---	mW
$T_j$	Junction temperature	---	150	---	°C
$T_{stg}$	Storage temperature	-55	---	150	°C

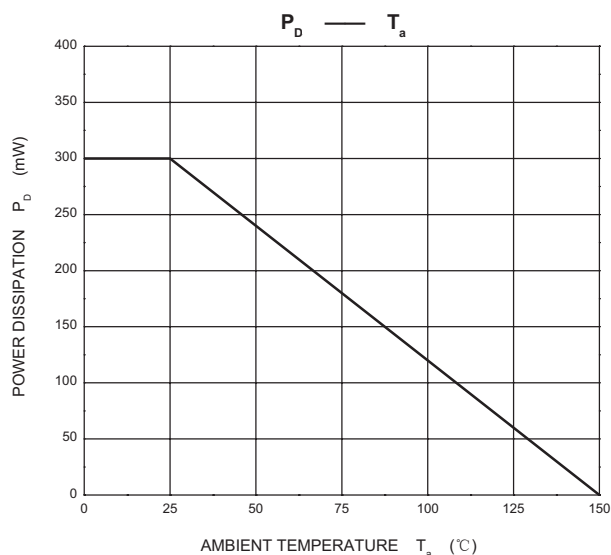
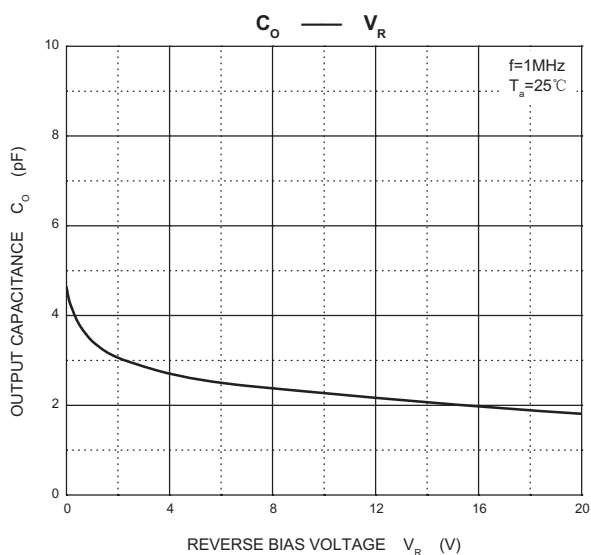
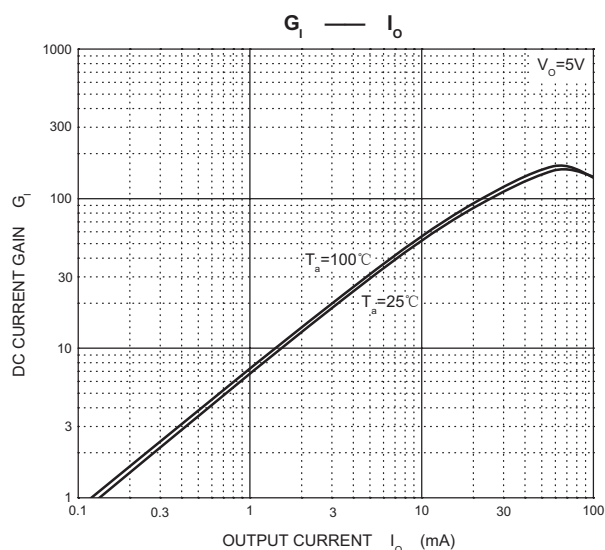
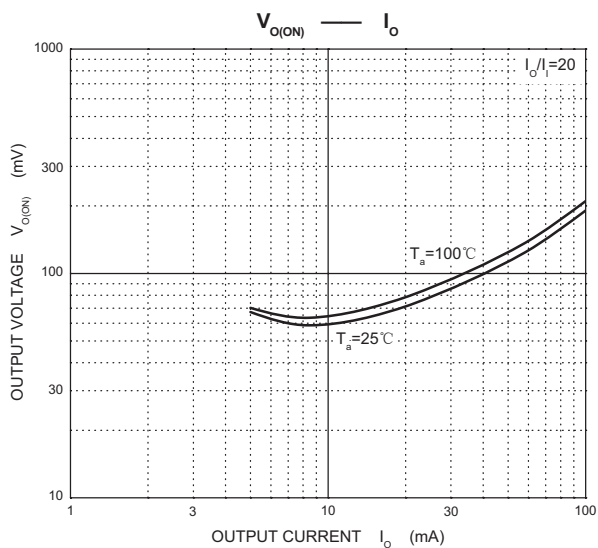
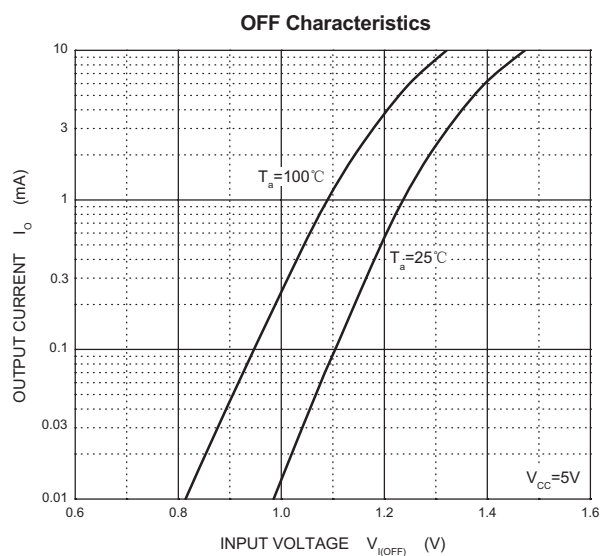
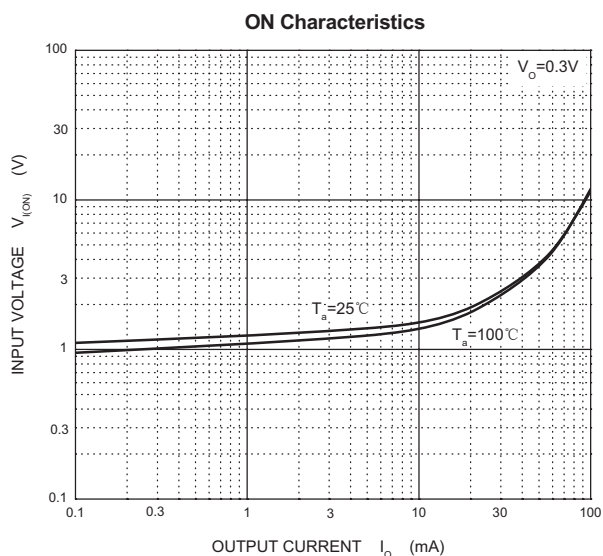
### Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
$V_{I(off)}$	Input voltage ( $V_{CC}=5V, I_o=100\mu A$ )	0.5	---	---	V
$V_{I(on)}$	Input voltage ( $V_o=0.3V, I_o=20mA$ )	---	---	3	V
$V_{O(on)}$	Output voltage ( $I_o=10mA, I_i=0.5mA$ )	---	---	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	$\mu A$
$G_1$	DC current gain ( $V_o=5V, I_o=10mA$ )	20	---	---	
$R_1$	Input resistance	3.29	4.7	6.11	K $\Omega$
$R_2/R_1$	Resistance ratio	0.8	1	1.2	
$f_T$	Transition frequency ( $V_{CE}=10V, I_E=5mA, f=100MHz$ )	---	250	---	MHz

### Equivalent circuit



## Typical Characteristics





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### Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 30Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

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

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