



MPSA29

NPN Darlington Transistor

Features

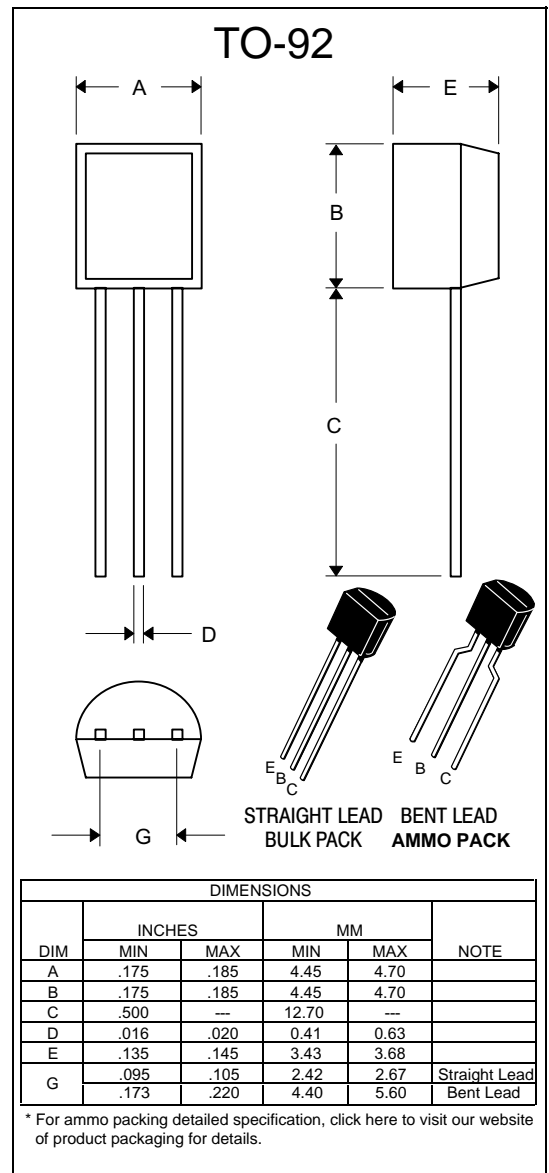
- Through Hole Package
- 150°C Junction Temperature
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Case: TO-92, Molded Plastic
- Marking: MPSA29

Maximum Ratings @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CES}	90	V
Emitter-Base Voltage	V_{EBO}	12	V
Collector Current(DC)	I_C	500	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	200	°C/W
Operating & Storage Temperature	T_j, T_{STG}	-55~150	°C

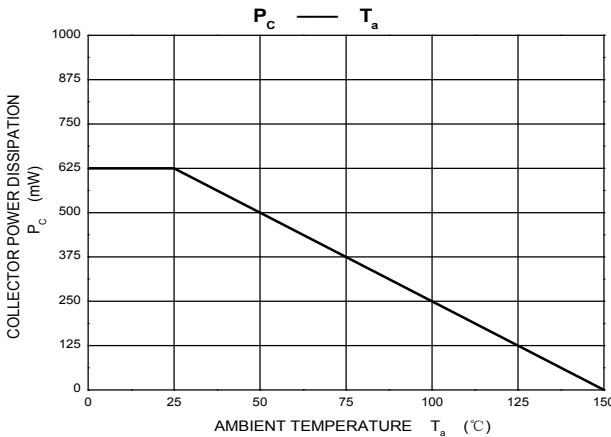
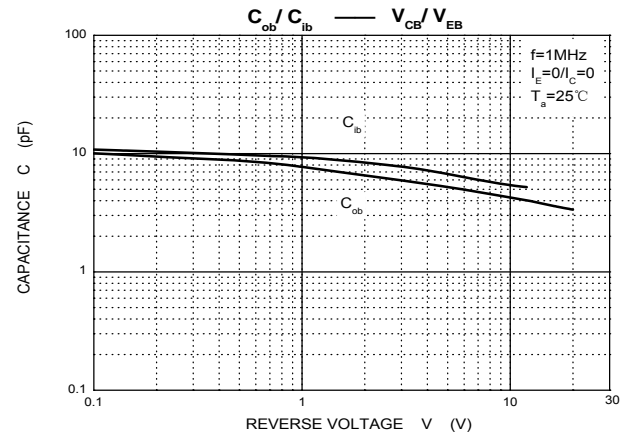
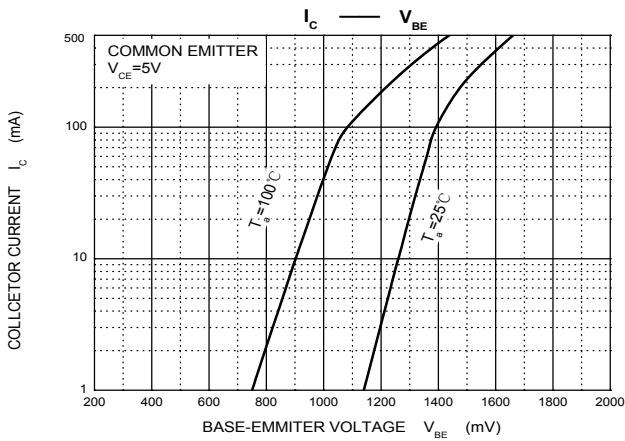
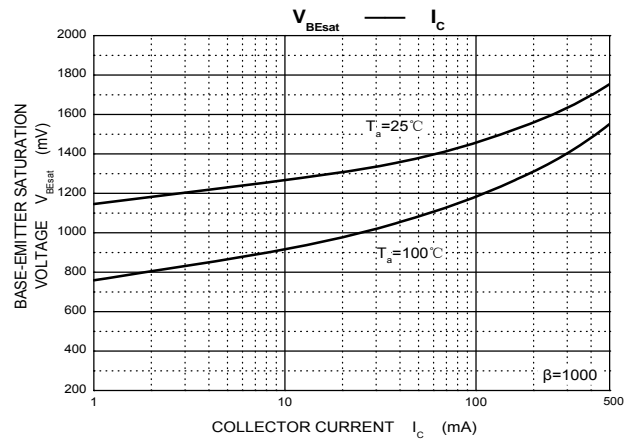
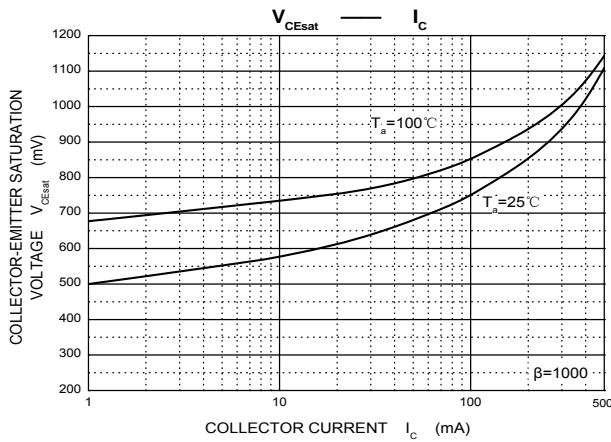
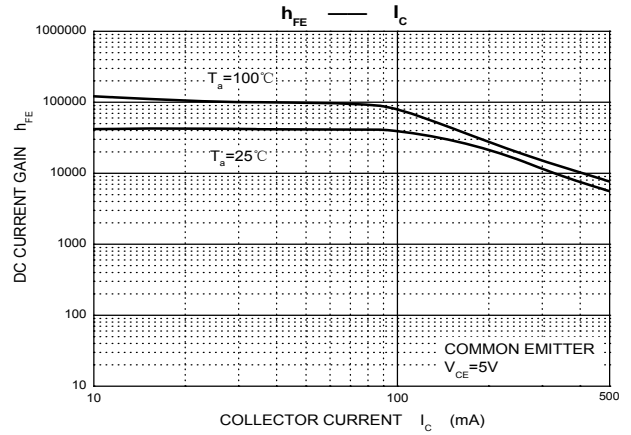
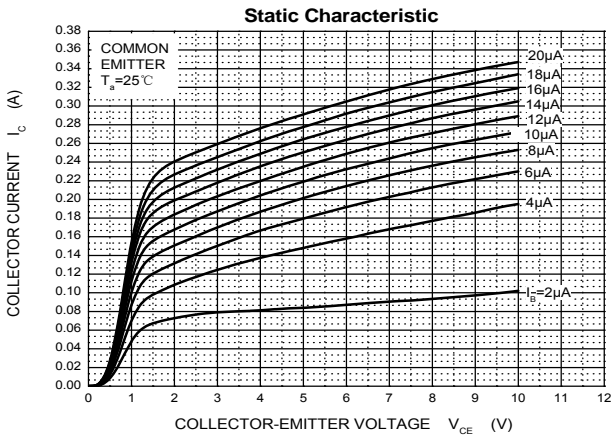


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ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	100			V
Collector-emitter breakdown voltage	V _{(BR)CES}	I _C =0.1mA, V _{BE} =0	90			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	12			V
Collector cut-off current	I _{CBO}	V _{CB} =80V, I _E =0			0.1	μA
Collector cut-off current	I _{CES}	V _{CE} =80V, I _E =0			0.5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =10V, I _C =0			0.1	μA
DC current gain	h _{FE(1)} *	V _{CE} =5V, I _C =10mA	10000			
	h _{FE(2)} *	V _{CE} =5V, I _C =100mA	10000			
Collector-emitter saturation voltage	V _{CE(sat)(1)} *	I _C =10mA, I _B =0.01mA			1.2	V
	V _{CE(sat)(2)} *	I _C =100mA, I _B =0.1mA			1.5	V
Base-emitter voltage	V _{BE} *	V _{CE} =5V, I _C =100mA			2.0	V
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=100MHz	125			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			8	pF

*Pulse test: pulse width ≤300μs, duty cycles ≤ 2.0%.



Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

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

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