



Micro Commercial Components

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MPSA63 MPSA64

Features

- Capable of 1.5Watts of Power Dissipation
- Collector Current –500mA
- Operating Junction Temperature Range: -55°C to +150°C
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking:MPSA63,MPSA64

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	-30	V
V _{CBO}	Collector-Base Voltage	-30	V
V _{EBO}	Emitter-Base Voltage	-10	V
I _C	Collector Current, Continuous	-500	mA
T _J	Operating Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Thermal Characteristics

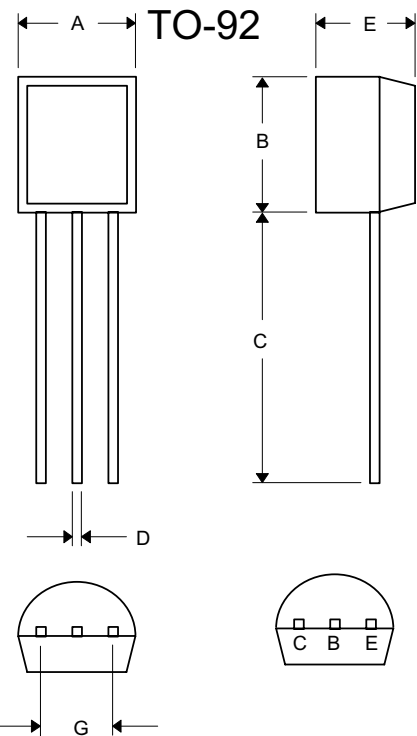
Symbol	Rating	Max	Unit
P _D	Total Device Dissipation @ T _A =25°C	625	mW
	Derate above 25°C	5.0	mW/°C
P _D	Total Device Dissipation @ T _A =25°C	1.5	Watts
	Derate above 25°C	12	mW/°C
R _{θJC}	Thermal Resistance, Junction to Case	83.3	°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	200	°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =-100µAdc, V _{BE} =0)	-30	---	Vdc
I _{CBO}	Collector Cutoff Current (V _{CB} =-30c, I _E =0)	---	-100	nAdc
I _{EBO}	Emitter Cutoff Current (V _{EB} =-0Vdc, I _C =0)	---	-100	nAdc

* Pulse Test: Pulse Width<300us, Duty Cycle<2.0%

PNP Darlington Transistor



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.096	.104	2.44	2.64	

Symbol	Parameter	Min	Typ	Max	Units
ON CHARACTERISTICS⁽¹⁾					
h _{FE}	DC Current Gain (V _{CE} =-5.0Vdc, I _C =-10mAdc)	MPSA63	5000	---	---
		MPSA64	10000	---	---
	(V _{CE} =-5.0Vdc, I _C =-100mA)	MPSA63	10000	---	---
		MPSA64	20000	---	---
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =-100mAdc, I _B =-0.1mAdc)	---	---	-1.5	Vdc
V _{BE(on)}	Base-Emitter On Voltage (I _C =-100mAdc, V _{CE} =-5.0Vdc)	---	---	-2.0	Vdc

SMALL-SIGNAL CHARACTERISTICS

f _T	Current-Gain ---Bandwidth Product ⁽²⁾ (V _{CE} =-5.0Vdc, f=100MHz, I _C =-100mAdc)	125	---	---	MHz
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1. Pulse Test: Pulse Width<300us, Duty Cycle<2.0%
2. $f_T = h_{FE} \times f_{\beta s f}$



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Ordering Information

Device	Packing
(Part Number)-AP	Tape&Reel;2Kpcs/Box
(Part Number)-BP	Bulk;1Kpcs/Bag

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