

Micro Commercial Components



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Features

- This device is designed for use as general purpose amplifiers and switches requiring collector currents to 300mA
- Lead Free Finish/RoHS Compliant ("P" Suffix designates
 RoHS Compliant See ordering information)
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 Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking:MPSA05
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	60	V
V _{CBO}	Collector-Base Voltage	60	V
V _{EBO}	Emitter-Base Voltage	4.0	V
l _c	Collector Current, Continuous	500	mA
TJ	Operating Junction Temperature	-55 to +150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Thermal Characteristics

Symbol	Rating	Max	Unit
PD	Total Device Dissipation	625	mW
	Derate above 25 ^o C	5.0	mW/°C
RJC	Thermal Resistance, Junction to Case	83.3	°C/W
R _{JA}	Thermal Resistance, Junction to Ambient	200	°C/W

 Electrical Characteristics @ 25°C Unless Otherwise Specified

 Symbol
 Parameter
 Min
 Max
 Units

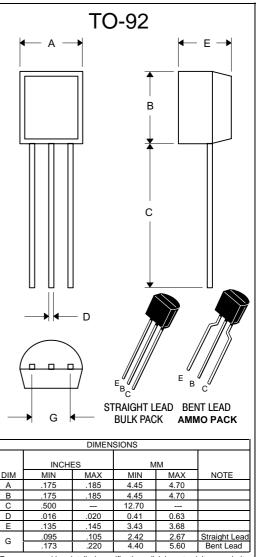
OFF CHARACTERISTICS

ULL CUAUA	U I ENIO I I UO			
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage* (L=1.0mAdc, L=0)	60		Vdc
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (t=100ì Adc, tc=0)	4.0		Vdc
LEO	Collector Cutoff Current (V _{CE} =60Vdc, _b =0)		0.1	uAdc
I _{сво}	Emitter Cutoff Current (V _{CB} =60Vdc, <u>k</u> =0)		0.1	uAdc
ON CHARA	CTERISTICS			
h _{FE}	DC Current Gain (V _{CE} =1.0Vdc, h=10mAdc)	100		

	$(v_{CE} - 1.0 v dc, C - 10 m A dc)$	100		
	(V _{CE} =1.0Vdc, L=100mAdc)	100		
V _{CE(sat)}	Collector-Emitter Saturation Voltage		0.25	Vdc
	(l _c =100mAdc, l _B =10mAdc)			
V _{BE(on)}	Base-Emitter On Voltage		1.2	Vdc
	(l _c =100mAdc, V _{CE} =1.0Vdc)			
Small Signal Characteristics				
f _T	Current Gain Bandwidth Product	100		MHz

MPSA05

NPN General Purpose Amplifier



For ammo packing detailed specification, click here to visit our website of product packaging for details.

Pulse Test: Pulse Width<300us, Duty Cycle<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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