

M·C·C

Micro Commercial Components



Micro Commercial Components
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Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- I_{CM} : 0.6A
- Operating and Storage Junction Temperatures: -55°C to 150°C
- Marking: 1P

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=10\text{mA}_\text{dc}$, $I_B=0$)	40		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=10\mu\text{A}_\text{dc}$, $I_E=0$)	75		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=10\mu\text{A}_\text{dc}$, $I_C=0$)	6.0		Vdc
I_{BL}	Base Cutoff Current ($V_{CE}=60\text{Vdc}$, $V_{BE}=3.0\text{Vdc}$)		20	nA dc
I_{CEX}	Collector Cutoff Current ($V_{CE}=60\text{Vdc}$, $V_{BE}=3.0\text{Vdc}$)		10	nA dc

ON CHARACTERISTICS

h_{FE}	DC Current Gain ($I_C=0.1\text{mA}_\text{dc}$, $V_{CE}=10\text{Vdc}$) ($I_C=1.0\text{mA}_\text{dc}$, $V_{CE}=10\text{Vdc}$) ($I_C=10\mu\text{A}_\text{dc}$, $V_{CE}=10\text{Vdc}$) ($I_C=150\mu\text{A}_\text{dc}$, $V_{CE}=10\text{Vdc}$) ($I_C=150\mu\text{A}_\text{dc}$, $V_{CE}=1.0\text{Vdc}$) ($I_C=500\mu\text{A}_\text{dc}$, $V_{CE}=10\text{Vdc}$)	35 50 75 100 50 40	300	
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage ($I_C=150\mu\text{A}_\text{dc}$, $I_B=15\mu\text{A}_\text{dc}$) ($I_C=500\mu\text{A}_\text{dc}$, $I_B=50\mu\text{A}_\text{dc}$)		0.3 1.0	Vdc
$V_{BE(\text{sat})}$	Base-Emitter Saturation Voltage ($I_C=150\mu\text{A}_\text{dc}$, $I_B=15\mu\text{A}_\text{dc}$) ($I_C=500\mu\text{A}_\text{dc}$, $I_B=50\mu\text{A}_\text{dc}$)	0.6	1.2 2.0	Vdc

SMALL-SIGNAL CHARACTERISTICS

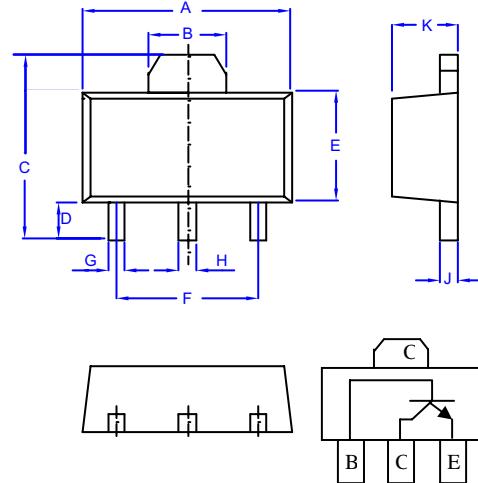
f_T	Current Gain-Bandwidth Product ($I_C=20\mu\text{A}_\text{dc}$, $V_{CE}=20\text{Vdc}$, $f=100\text{MHz}$)	300		MHz
C_{obo}	Output Capacitance ($V_{CE}=10\text{Vdc}$, $I_E=0$, $f=1.0\text{MHz}$)		8.0	pF
C_{ibo}	Input Capacitance ($V_{BE}=0.5\text{Vdc}$, $I_C=0$, $f=1.0\text{MHz}$)		25	pF
NF	Noise Figure ($I_C=100\mu\text{A}_\text{dc}$, $V_{CE}=10\text{Vdc}$, $R_S=1.0\text{k}\Omega$ $f=1.0\text{kHz}$)		4.0	dB

SWITCHING CHARACTERISTICS

t_d	Delay Time	($V_{CC}=30\text{Vdc}$, $V_{BE}=0.5\text{Vdc}$	10	ns
t_r	Rise Time	($I_C=150\mu\text{A}_\text{dc}$, $I_{B1}=15\mu\text{A}_\text{dc}$)	25	ns
t_s	Storage Time	($V_{CC}=30\text{Vdc}$, $I_C=150\mu\text{A}_\text{dc}$	225	ns
t_f	Fall Time	($I_{B1}=I_{B2}=15\mu\text{A}_\text{dc}$)	60	ns

*Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$ **PXT2222A**

0.5W
NPN General
Purpose Amplifier

SOT-89

DIM	INCHES		MM		NOTES
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.061	-----	1.55	-----	REF.
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	-----	3.00	-----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

www.mccsemi.com

TM

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Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 1 Kpcs/ Reel

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

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