

Obsolete

M.C.C.

Micro Commercial Components



Micro Commercial Components
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2N2222
2N2222A

Features

- High current (max.800mA)
Low voltage (max.40V)
Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

Table with 4 columns: Symbol, Rating, Rating, Unit. Rows include V_CEO, V_CBO, V_EBO, I_C, I_CM, I_BM, T_J, T_STG.

Thermal Characteristics

Table with 4 columns: Symbol, Rating, Max, Unit. Rows include P_tot, R_JC, R_JA.

Electrical Characteristics @ 25°C Unless Otherwise Specified

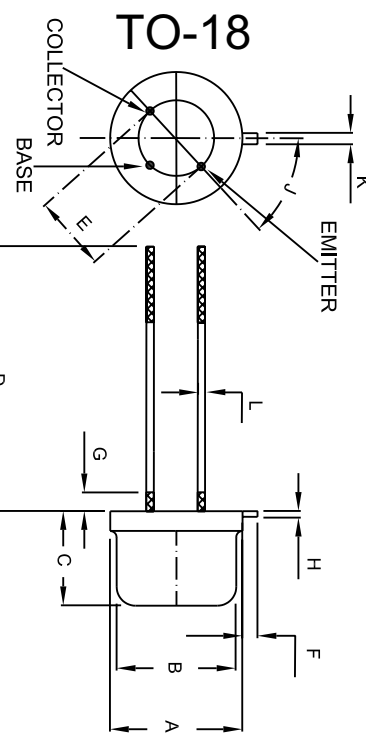
Table with 5 columns: Symbol, Parameter, Min, Max, Units.

OFF CHARACTERISTICS

Table with 5 columns: Symbol, Parameter, Rating, Min, Max, Units. Rows include I_CBO, I_EBO, h_FE.

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

NPN Switching Transistors



DIMENSIONS table with columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), NOTE. Rows include dimensions A through L.

2N2222, 2N2222A

Symbol	Parameter	Min	Max	Units	
ON CHARACTERISTICS*					
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ⁸ ($I_C=150\text{mA}$, $I_B=15\text{mA}$) ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	2N2222	---	400	mVdc
			---	1.6	Vdc
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage* ($I_C=150\text{mA}$, $I_B=15\text{mA}$) ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	2N2222A	---	300	mVdc
			---	1.0	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage * ($I_C=150\text{mA}$, $I_B=15\text{mA}$) ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	2N2222	---	1.3	Vdc
			---	2.6	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage* ($I_C=150\text{mA}$, $I_B=15\text{mA}$) ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	2N2222A	0.6	1.2	Vdc
			---	2.0	Vdc

SMALL-SIGNAL CHARACTERISTICS

C_{OB}	Output Capacitance ($V_{CB}=10\text{Vdc}$, $I_E=I_E=0$, $f=1.0\text{MHz}$)		---	8.0	pF
f_T	Transition Frequency ($V_{CE}=20\text{Vdc}$, $I_C=20\text{mA}$, $f=100\text{MHz}$)	2N2222	250	---	MHz
		2N2222A	300	---	MHz
NF	Noise Figure ($V_{CE}=5.0\text{Vdc}$, $I_C=200\mu\text{A}$, $R_s=2.0\text{KOHM}$, $f=1.0\text{kHz}$, $B=200\text{Hz}$)	2N2222A	---	4.0	dB

SWITCHING CHARACTERISTICS

T_d	Delay Time	$I_{CON}=150\text{mA}$, $I_{BON}=15\text{mA}$, $I_{B(off)}=15\text{mA}$	---	10	ns
t_r	Rise Time		---	25	ns
t_s	Storage Time		---	200	ns
t_f	Fall Time		---	60	ns

* Pulse Test: $t_p \leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$



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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 100pcs/Box

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