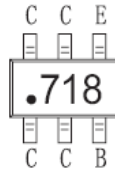


SOT-23-6L Plastic-Encapsulate Transistors

CJ10P20DE6 TRANSISTOR (PNP)

FEATURES

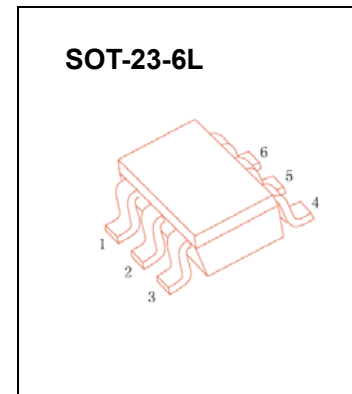
- Suitable for reducing set's size as a result from enabling high-density mounting due to one pin small packages
- Low series resistance
- Low capacitance



MARKING:

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-20	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2.5	A
P_C	Collector Dissipation	0.35	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=-10\text{mA}, I_B=0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-15\text{V}, I_E=0$			-0.1	μA
Collector Emitter Cut-Off Current	I_{CES}	$V_{CES}=-15\text{V}$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.1	μA
DC current gain	h_{FE1}^*	$V_{CE}=-2\text{V}, I_C=-10\text{mA}$	250			
	h_{FE2}^*	$V_{CE}=-2\text{V}, I_C=-0.1\text{A}$	300			
	h_{FE3}^*	$V_{CE}=-2\text{V}, I_C=-2\text{A}$	150			
	h_{FE4}^*	$V_{CE}=-2\text{V}, I_C=-6\text{A}$	15			
Collector-emitter saturation voltage	$V_{CE(sat)1}^*$	$I_C=-0.1\text{A}, I_B=-0.01\text{A}$			-0.03	V
	$V_{CE(sat)2}^*$	$I_C=-1\text{A}, I_B=-0.02\text{A}$			-0.22	V
	$V_{CE(sat)3}^*$	$I_C=-1.5\text{A}, I_B=-0.05\text{A}$			-0.25	V
	$V_{CE(sat)4}^*$	$I_C=-2.5\text{A}, I_B=-0.15\text{A}$			-0.35	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-2.5\text{A}, I_B=-0.15\text{A}$			-1.05	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}^*$	$V_{CE}=-2\text{V}, I_C=-2.5\text{A}$	-0.85		-0.95	V
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=100\text{MHz}$	150			MHz
Output Capacitance	C_{obo}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$			30	pF
Turn-on Time	t_{on}	$V_{CC}=-10\text{V}, I_C=-1\text{A}, I_{B1}=I_{B2}=-0.02\text{A}$		75		ns
Turn-off Time	t_{off}	$V_{CC}=-10\text{V}, I_C=-1\text{A}, I_{B1}=I_{B2}=-0.02\text{A}$		670		ns

* pulsed test: pulse width=300 μs , duty cycle \leq 2%.

