

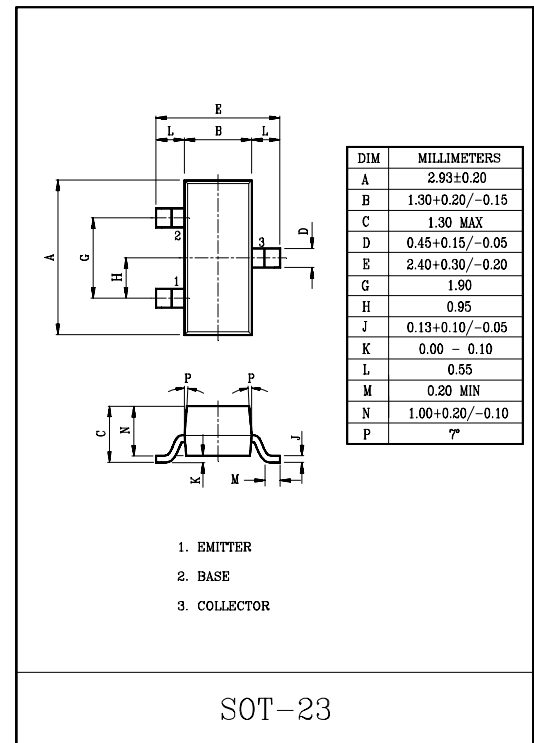
GENERAL PURPOSE APPLICATION.
HIGH VOLTAGE APPLICATION.

FEATURES

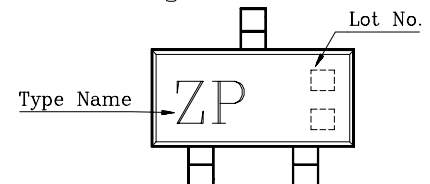
- High Collector Breakdwon Voltage
: $V_{CBO}=160V$, $V_{CEO}=140V$
- Low Leakage Current.
: $I_{CBO}=100nA(Max.)$ $V_{CB}=100V$
- Low Saturation Voltage
: $V_{CE(sat)}=0.25V(Max.)$ $I_C=50mA$, $I_B=5mA$
- Low Noise : $NF=10dB (Max.)$

MAXIMUM RATINGS ($T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Base Current	I_B	100	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^{\circ}C$



Marking



2N5550S

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} =100V, I _E =0	-	-	100	nA
		V _{CB} =100V, I _E =0, Ta=100°C	-	-	100	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} =4V, I _C =0	-	-	50	nA
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =0.1mA, I _E =0	160	-	-	V
Collector-Emitter Breakdown Voltage *	V _{(BR)CEO}	I _C =1mA, I _B =0	140	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6	-	-	V
DC Current Gain *	h _{FE} (1)	V _{CE} =5V, I _C =1mA	60	-	-	
	h _{FE} (2)	V _{CE} =5V, I _C =10mA	60	-	250	
	h _{FE} (3)	V _{CE} =5V, I _C =50mA	20	-	-	
Collector-Emitter Saturation Voltage *	V _{CE(sat)1}	I _C =10mA, I _B =1mA	-	-	0.15	V
	V _{CE(sat)2}	I _C =50mA, I _B =5mA	-	-	0.25	
Base-Emitter Saturation Voltage *	V _{BE(sat)1}	I _C =10mA, I _B =1mA	-	-	1.0	V
	V _{BE(sat)2}	I _C =50mA, I _B =5mA	-	-	1.2	
Transition Frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100	-	300	MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz	-	-	6	pF
Input Capacitance	C _{ib}	V _{BE} =0.5V, I _C =0, f=1MHz	-	-	30	pF
Small-Signal Current Gain	h _{fe}	V _{CE} =10V, I _C =1mA, f=1kHz	50	-	200	
Noise Figure	NF	V _{CE} =5V, I _C =250μA R _g =1kΩ, f=10Hz~15.7kHz	-	-	10	dB

*Pulse Test : Pulse Width ≤300μS, Duty Cycle≤2%