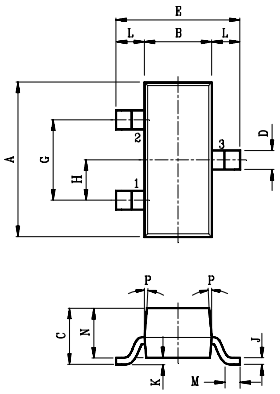
GENERAL PURPOSE APPLICATION.
HIGH VOLTAGE APPLICATION.

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.)



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/−0.15
C	1.30 MAX
D	0.45+0.15/−0.05
E	2.40+0.30/−0.20
G	1.90
H	0.95
J	0.13+0.10/−0.05
K	0.00 − 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/−0.10
P	7°

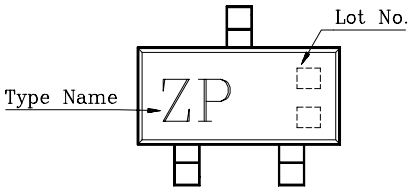
1. EMITTER
2. BASE
3. COLLECTOR

SOT-23

MAXIMUM RATINGS (Ta=25℃)

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	℃
Storage Temperature Range	T_{stg}	-55~150	℃

Marking



ELECTRICAL CHARACTERISTICS (Ta=25℃)

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℃	-	-	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 Rg=1kΩ, f=10Hz~15.7kHz	-	-	10	dB

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