

### 2N6518

### **High Voltage Transistor**

- Collector-Emitter Voltage: V<sub>CEO</sub>= -250V
  Collector Dissipation: P<sub>C</sub> (max)=625mW
  Complement to 2N6515



## **PNP Epitaxial Silicon Transistor**

1. Emitter 2. Base 3. Collector

### **Absolute Maximum Ratings** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	-250	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-250	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current	-500	mA
I <sub>B</sub>	Base Current	-250	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
	Derate above 25°C	5	mW/°C
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

Refer to 2N6520 for graphs

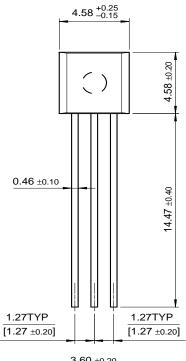
### **Electrical Characteristics** $T_a$ =25°C unless otherwise noted

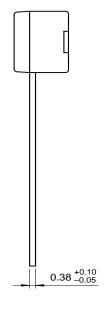
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV <sub>CBO</sub>	* Collector-Base Breakdown Voltage	I <sub>C</sub> = -100μA, I <sub>E</sub> =0	-250		V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA, I <sub>B</sub> =0	-250		V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	$I_{E}$ = -10 $\mu$ A, $I_{C}$ =0	-5		V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -150V, I <sub>E</sub> =0		-50	nA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = -4V, I <sub>C</sub> =0		-50	nA
h <sub>FE</sub>	* DC Current Gain	V <sub>CE</sub> = -10V, I <sub>C</sub> = -1mA V <sub>CE</sub> = -10V, I <sub>C</sub> = -10mA V <sub>CE</sub> = -10V, I <sub>C</sub> = -30mA V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA V <sub>CE</sub> = -10V, I <sub>C</sub> = -100mA	35 50 50 45 25	300 220	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA I <sub>C</sub> = -30mA, I <sub>B</sub> = -3mA I <sub>C</sub> = -50mA, I <sub>B</sub> = -5mA		-0.30 -0.35 -0.50 -1	V V V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA I <sub>C</sub> = -30mA, I <sub>B</sub> = -3mA		-0.75 -0.85 -0.90	V V V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> = -10V, I <sub>C</sub> = -100mA		-2	V
f <sub>T</sub>	* Current Gain Bandwidth Product	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f=20MHz	40	200	MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -20V, I <sub>E</sub> =0, f=1MHz		6	pF
C <sub>EB</sub>	Emitter-Base Capacitance	V <sub>EB</sub> = -0.5V, I <sub>C</sub> =0, f=1MHz		100	pF
t <sub>ON</sub>	Turn On Time	$V_{BE}$ (off)= -2V, $V_{CC}$ = -100V $I_{C}$ = -50mA, $I_{B1}$ = -10mA		200	ns
t <sub>OFF</sub>	Turn Off Time	V <sub>CC</sub> = -100V, I <sub>C</sub> = -50mA 3.5 I <sub>B1</sub> =I <sub>B2</sub> =10mA		ns	

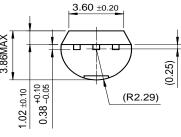
<sup>\*</sup> Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

# **Package Dimensions**

TO-92







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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Rev. I1

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