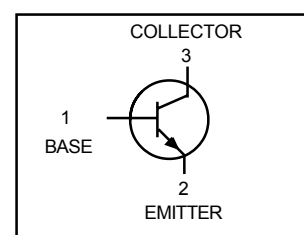


## NPN Silicon

### FEATURE

- High current capacity in compact package.  
 $I_C = 0.8A.$
- Epitaxial planar type.
- NPN complement: 8050
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"
- **Moisture Sensitivity Level 1**



### DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
8050PLT1	80P	3000/Tape&Reel
8050QLT1	1YC	3000/Tape&Reel
8050RLT1	1YE	3000/Tape&Reel

### MAXIMUM RATINGS

Rating	Symbol	Max	Unit
Collector-Emitter Voltage	$V_{CEO}$	25	V
Collector-Base Voltage	$V_{CBO}$	40	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current-continouon	$I_C$	800	mAdc

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,(1) $T_A=25^{\circ}C$ Derate above $25^{\circ}C$	$P_D$	225 1.8	mW mW/ $^{\circ}C$
Thermal Resistance,Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}C/W$
Total Device Dissipation Alumina Substrate,(2) $T_A=25^{\circ}C$ Derate above $25^{\circ}C$	$P_D$	300 2.4	mW mW/ $^{\circ}C$
Thermal Resistance,Junction to Ambient	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction and Storage Temperature	$T_j, T_{stg}$	-55 to +150	$^{\circ}C$

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)**

Characteristic	Symbol	Min	Typ	Max	Unit
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**OFF CHARACTERISTICS**

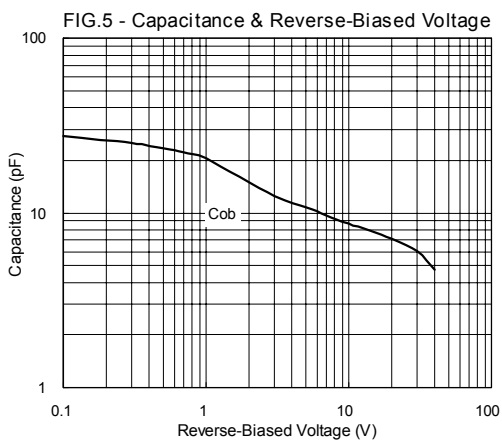
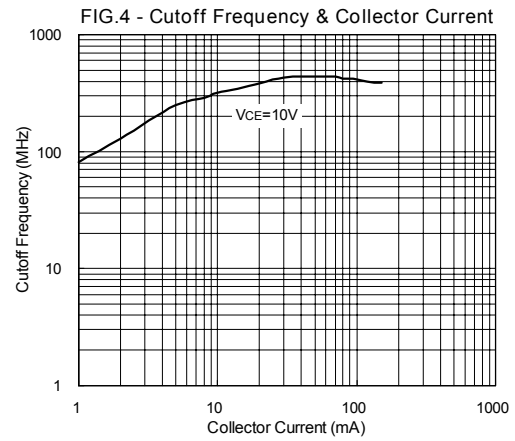
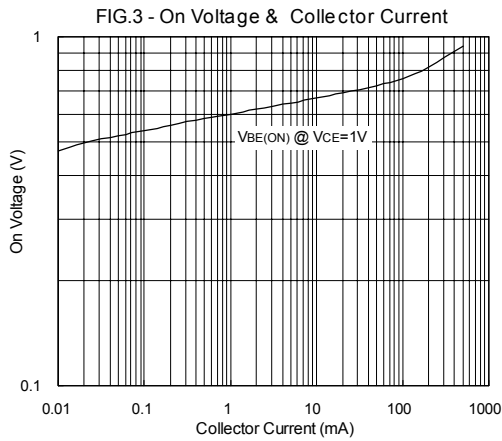
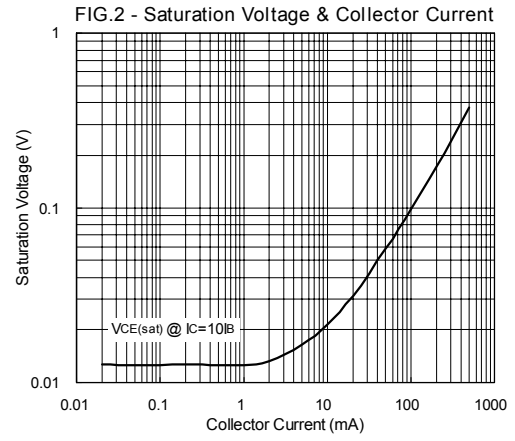
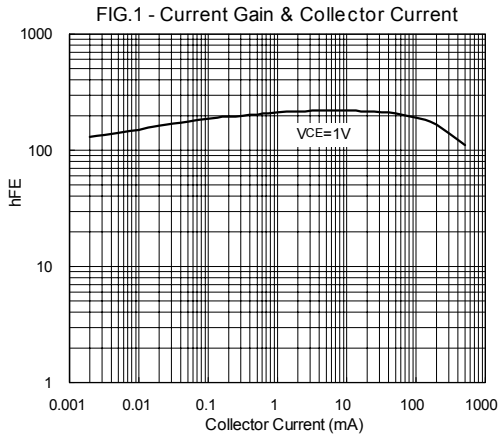
Collector-Emitter Breakdown Voltage (I <sub>C</sub> =1.0mA)	V <sub>(BR)CEO</sub>	25	–	–	V
Emitter-Base Breakdown Voltage (I <sub>E</sub> =100μA)	V <sub>(BR)EBO</sub>	5	–	–	V
Collector-Base Breakdown Voltage (I <sub>C</sub> =100μA)	V <sub>(BR)CBO</sub>	40	–	–	V
Collector Cutoff Current (V <sub>CB</sub> =35V)	I <sub>CBO</sub>	–	–	150	nA
Emitter Cutoff Current (V <sub>EB</sub> =4V)	I <sub>EBO</sub>	–	–	150	nA

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)**

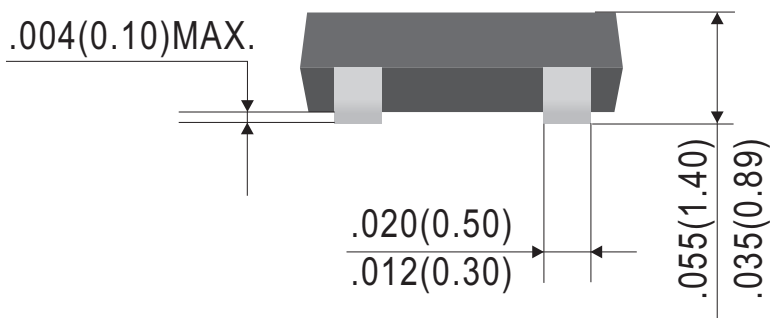
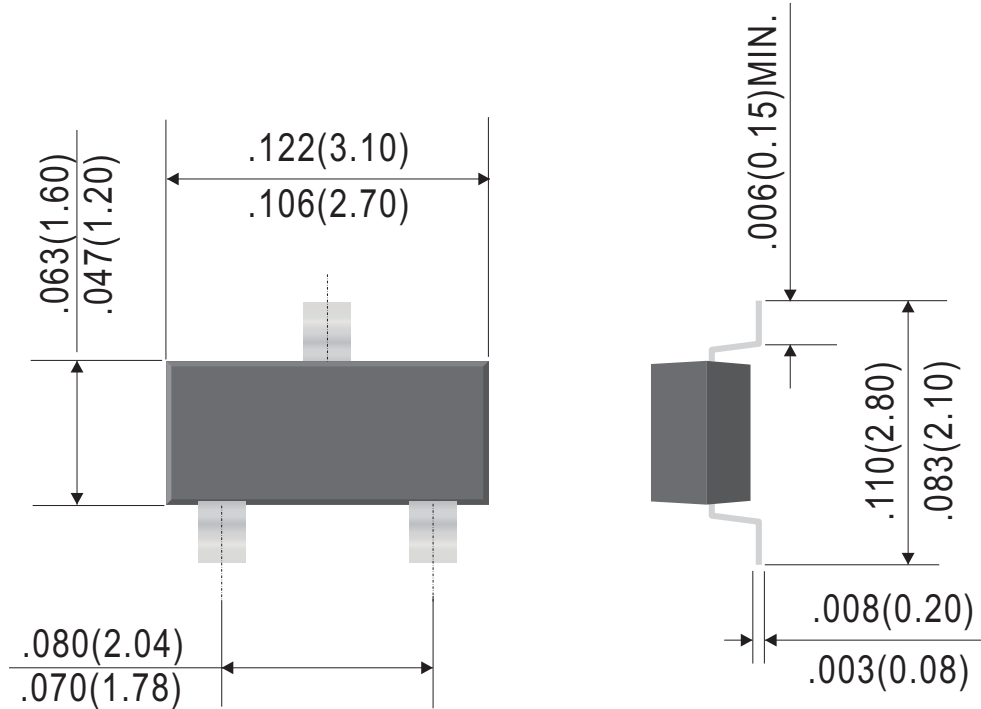
Charateristic	Symbol	Min	Typ	Max	Unit
<b>DC Current Gain</b>					
I <sub>C</sub> =100mA, V <sub>CE</sub> =1V	h <sub>FE</sub>	100	-	400	MHZ
<b>Collector-Emitter Saturation Voltage</b>					
(I <sub>C</sub> =800mA, I <sub>B</sub> =80mA)	V <sub>CE(sat)</sub>	-	-	0.5	V

NOTE :

*	P	Q	R
h <sub>FE</sub>	100~200	150~300	200-400



**SOT-23**



Dimensions in inches and (millimeters)

**Ordering Information:**

Device PN	Packing
8050 x <sup>(2)</sup> LT1 G <sup>(1)</sup> -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

(2) CLASSIFICATION OF hFE RANK

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