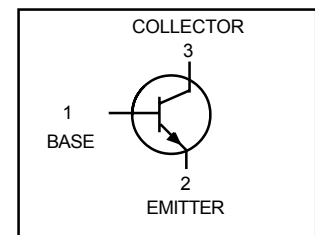


NPN Silicon

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"



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_A=25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

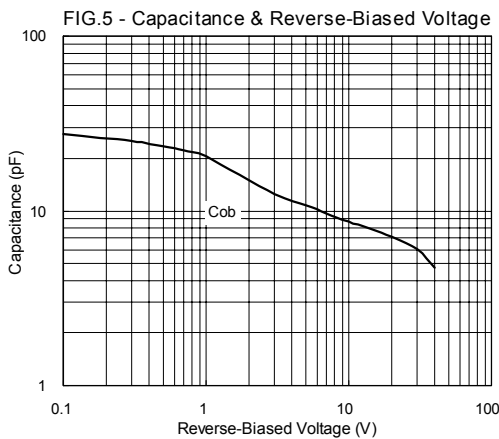
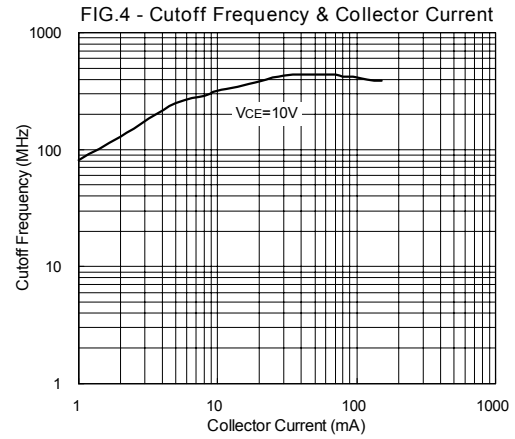
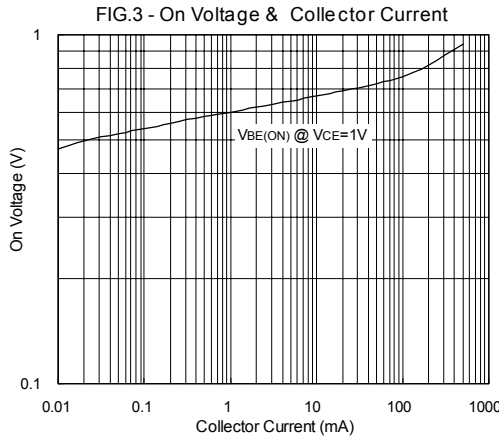
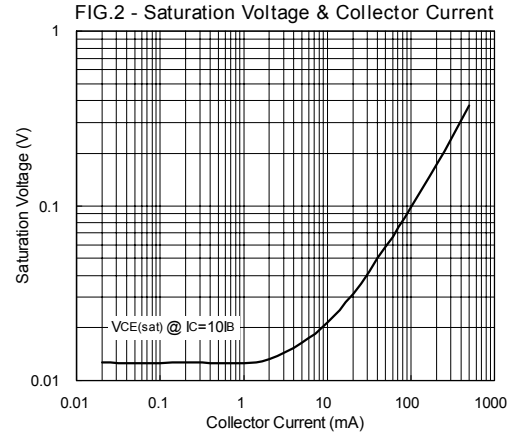
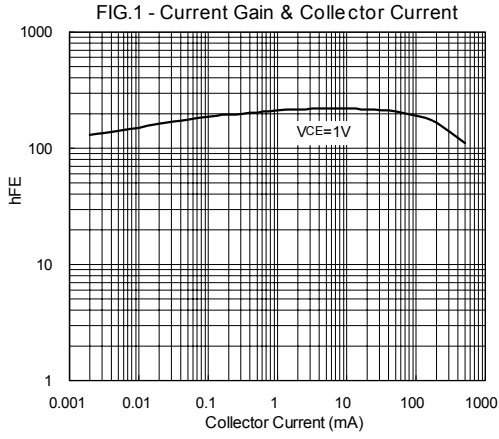
Collector-Emitter Breakdown Voltage (I _C =1.0mA)	V _{(BR)CEO}	25	-	-	V
Emitter-Base Breakdown Voltage (I _E =100μA)	V _{(BR)EBO}	5	-	-	V
Collector-Base Breakdown Voltage (I _C =100μA)	V _{(BR)CBO}	40	-	-	V
Collector Cutoff Current (V _{CB} =35V)	I _{CBO}	-	-	150	nA
Emitter Cutoff Current (V _{EB} =4V)	I _{EBO}	-	-	150	nA

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

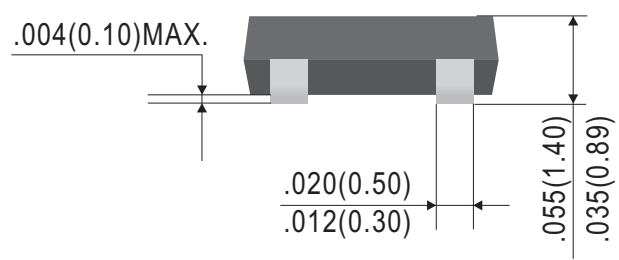
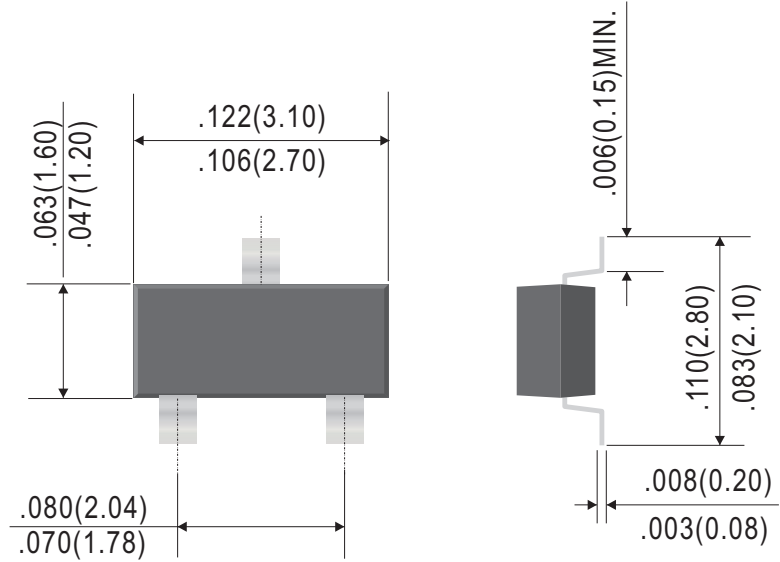
Charateristic	Symbol	Min	Typ	Max	Unit
DC Current Gain					
I _C =100mA, V _{CE} =1V	h _{FE}	100	-	400	MHZ
Collector-Emitter Saturation Voltage					
(I _C =800mA, I _B =80mA)	V _{CE(sat)}	-	-	0.5	V

NOTE :

*	P	Q	R
h _{FE}	100~200	150~300	200-400



SOT-23



Dimensions in inches and (millimeters)

