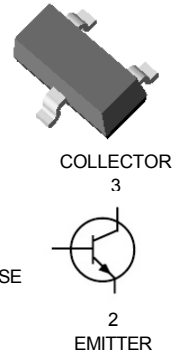


PRIMARY CHARACTERISTICS

P_D	225mW
V_{CEO}	25V
I_C	800mA
h_{FE}	100~300
$T_{J,Max}$	150°C

SOT-23 PACKAGE
Marking Code : 80P/1YC
Ex : 8050PLT1

FEATURES

- High current capacity in compact package.
IC = 0.8A.
- Epitaxial planar type.
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case : Molded plastic, SOT-23
- Polarity : Shown above
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

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-continuous	I_C	800	mA

THERMAL CHARACTERISTICS

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

1. FR-5 = 1.0 x 0.75 x 0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

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

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

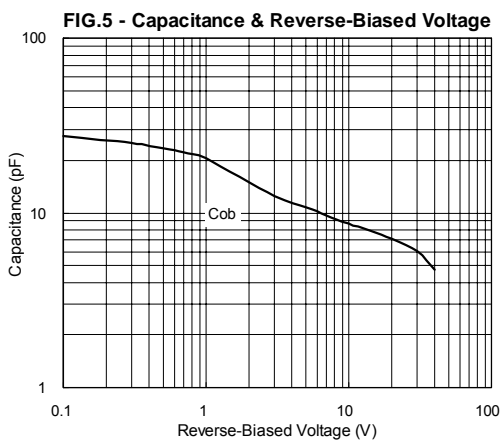
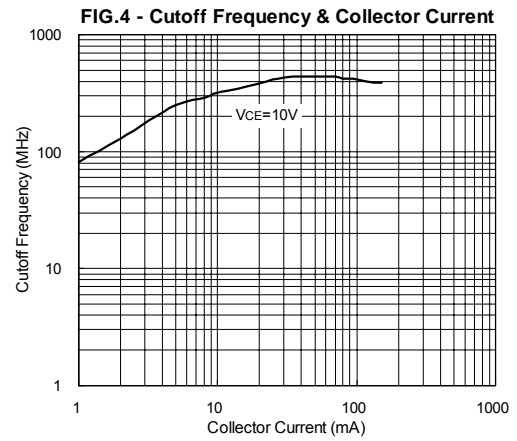
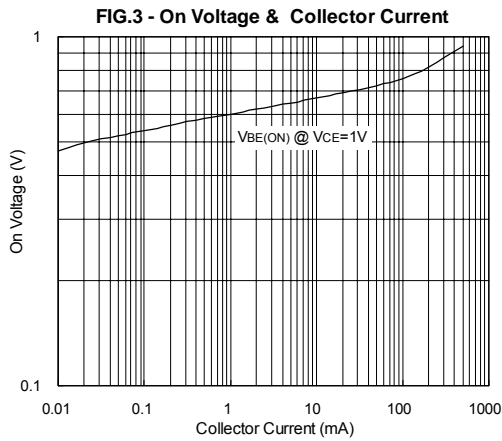
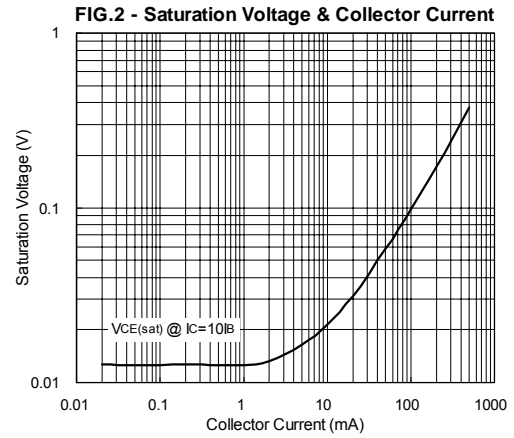
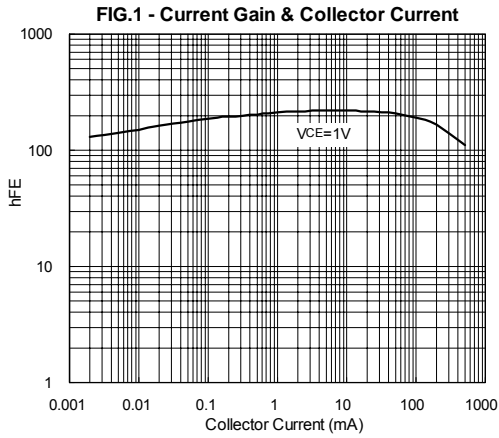
Collector-Emitter Breakdown Voltage (I _C =1.0mA)	V _{(BR)CEO}	25	-	-	V
Emitter-Base Breakdown Voltage (I _E =100μA)	V _{(BR)EBO}	5	-	-	V
Collector-Base Breakdown Voltage (I _C =100μA)	V _{(BR)CBO}	40	-	-	V
Collector Cutoff Current (V _{CB} =35V)	I _{CBO}	-	-	150	nA
Emitter Cutoff Current (V _{EB} =4V)	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	-	300	
Collector-Emitter Saturation Voltage					
(I _C =800mA, I _B =80mA)	V _{CE(sat)}	-	-	0.5	V

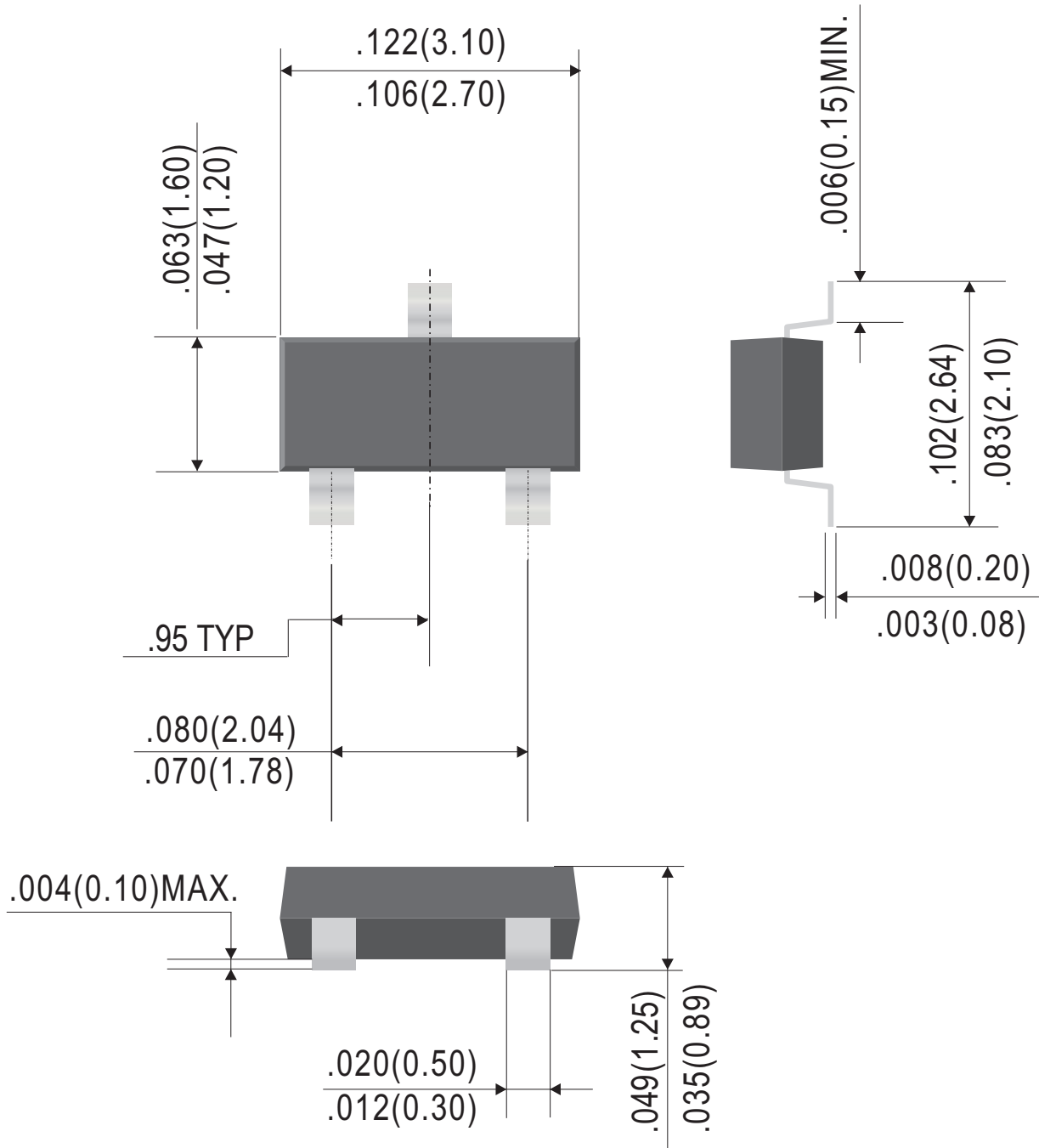
Classification of h_{FE}

Rank	P	Q
A U]b[80 P	1YC
Range	100~200	150~300



Outline Drawing

SOT-23

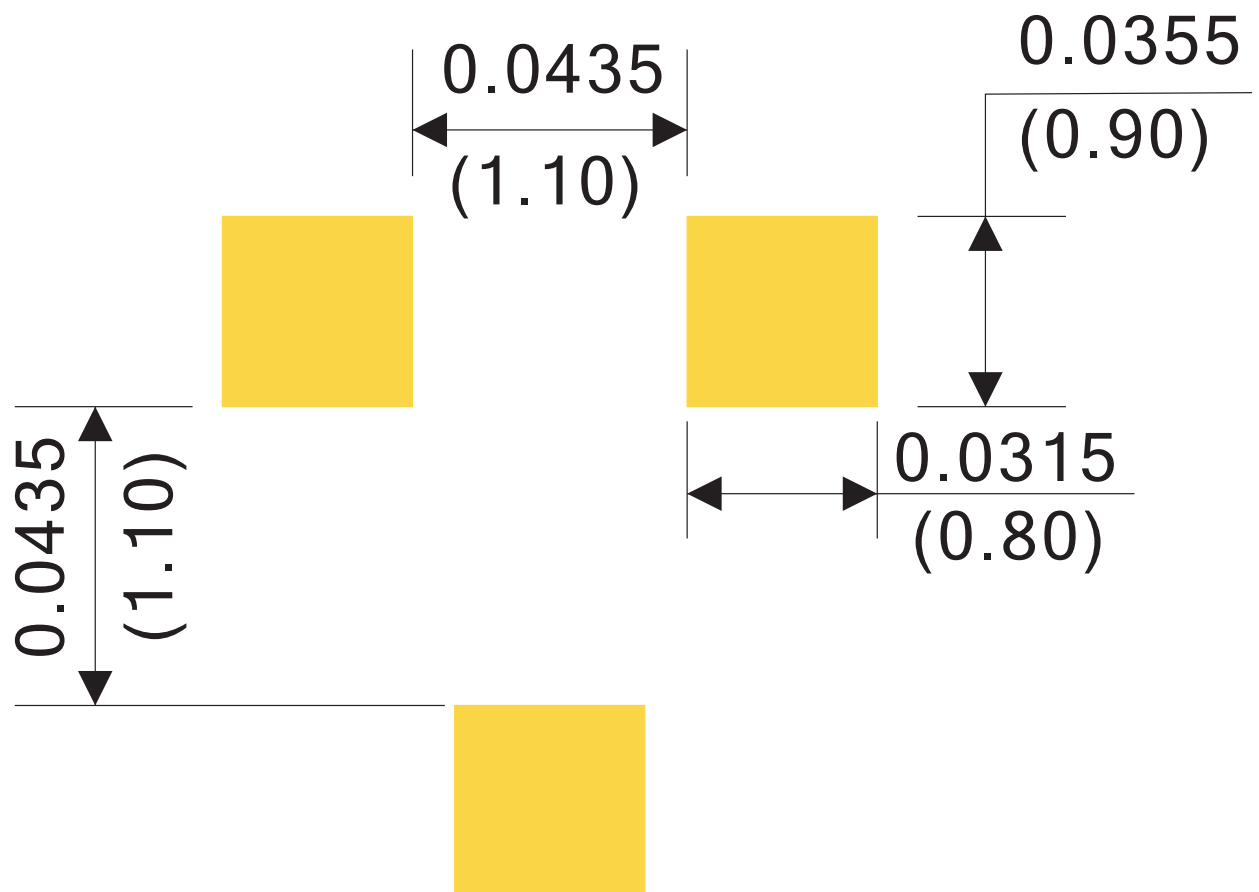


Dimensions in inches and (millimeters)

Rev.E

Suggested Soldering Pad Layout

SOT-23



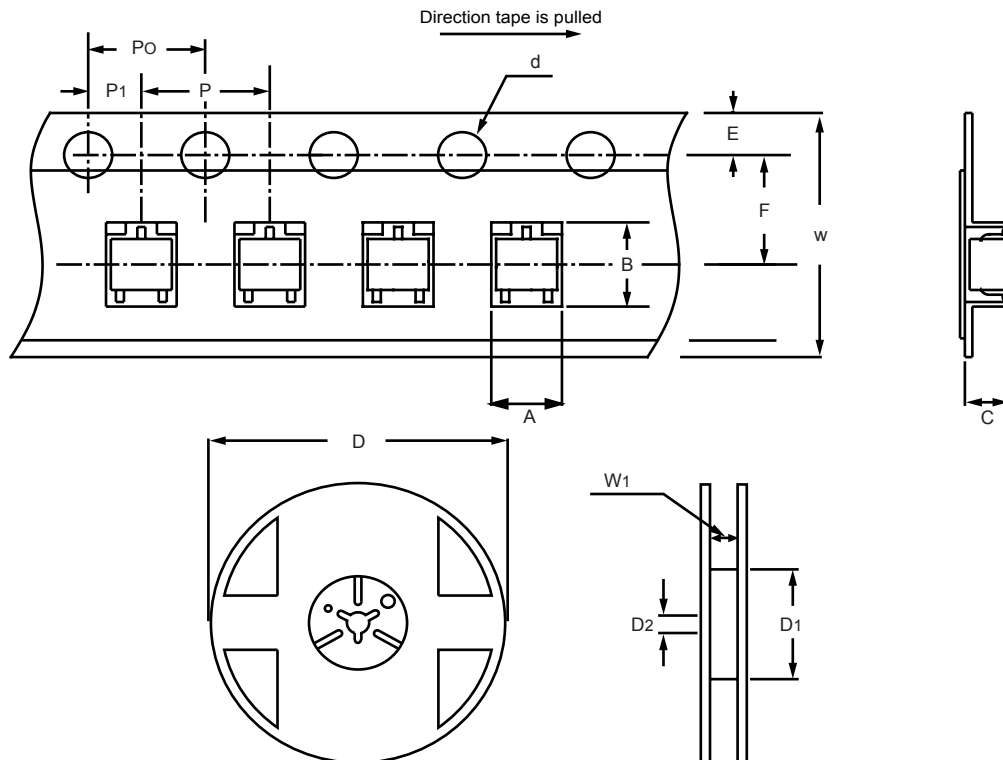
Dimensions in inches and (millimeters)

Rev.A

Reel Taping Sepecification - Surface Mount Device/SOT-23

Reel Packing

PACKAGE	PER REEL EA	REEL DIA (m/m)	BOX SIZE (m/m)	PER BOX EA	CARTION (m/m)	PER CARTION EA	GROSS WEIGHT (Kg)
SOT-23	3,000	178	192*195*136	30,000	440*410*410	360,000	15.0



ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Carrier width	A	3.1±0.1	0.122±0.004
Carrier length	B	2.85±0.1	0.112±0.004
Carrier depth	C	1.40±0.1	0.055±0.004
Sprocket hole	d	1.5 + 0.1/-0	0.059 + 0.004/-0
Reel outside diameter	D	180 + 0/-3	7.083 + 0/-0.118
Reel inner diameter	D1	60 + 1/-0	2.361 + 0.039/-0
Feed hole diameter	D2	13±0.2	0.512±0.008
Sprocket hole position	E	1.75±0.1	0.069±0.004
Punch hole position	F	3.5±0.05	0.138±0.002
Punch hole pitch	P	4.0±0.1	0.157±0.004
Sprocket hole pitch	P0	4.0±0.1	0.157±0.004
Embossment center	P1	2.0±0.05	0.079±0.002
Tape width	W	8.0±0.2	0.315±0.008
Reel width	W1	9.0±0.3	0.354±0.012

NOTE: 1.Devices are packed in accordance with EIAJ stand ETX-7001 and specifications listed above.

2.Available on 7 inch (3,000 c.t.) or 13 inch (10,000 c.t.) diameter reels.

Ordering Information:

Device PN	Packing
8050x ⁽¹⁾ LT1G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: () 0E # 7-

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

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