DESCRIPTION

The 8050HP and 8050HQ is available in SOT-23 package.

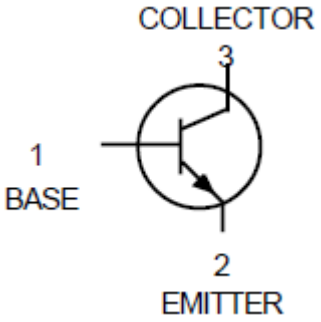
FEATURES

- High current capacity in compact package. I_C = 1.5A.
- Epitaxial planar type
- NPN complement: 8050H
- Available in SOT-23 package

ORDERING INFORMATION

Package Type	Part Number
SOT-23	8050HP
	8050HQ
Package	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

V_{CEO}, Collector-Emitter Voltage	25V
V_{CBO}, Collector-Base Voltage	40V
V_{EBO}, Emitter-Base Voltage	5V
I_C, Collector Current -Continuous	1500mAdc

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Total Device Dissipation FR-5 Board, NOTE1			
T_A = 25℃	P_D	225	mW
Derate above 25℃		1.8	mW/℃
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	℃/W
Total Device Dissipation			
Alumina Substrate, NOTE2 T_A = 25°C	P_D	300	mW
Derate above 25°C		2.4	mW/℃
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	℃/W
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	℃

NOTE1: FR-5 = 1.0 x 0.75 x 0.062 in.
NOTE2: Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

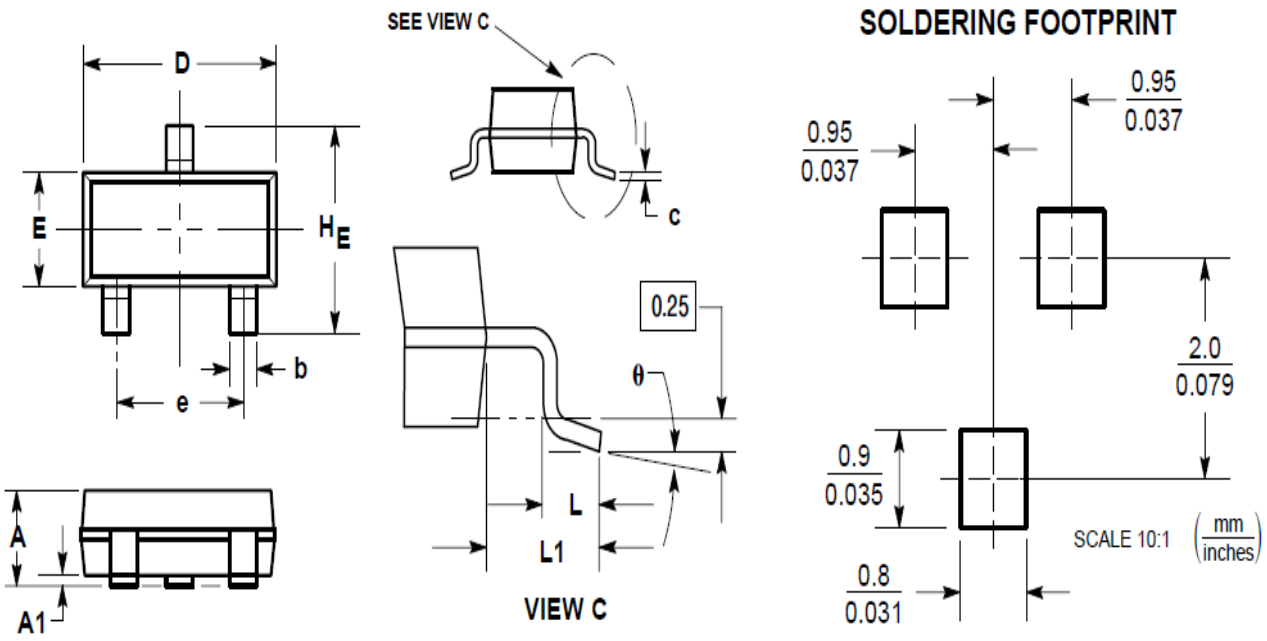
ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise noted.

Parameter	Symbol	Characteristic		Min	Typ	Max	Unit
OFF CHARACTERISTICS							
Collector-Emitter Breakdown Voltage NOTE3	$V_{(BR)CEO}$	I_C = 1.0mA		25	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 100μA		5	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100μA		40	-	-	v
Collector Cutoff Current	I_{CES}	V_{CB} = 35V		-	-	150	nA
Emitter Cutoff Current	I_{CBO}	V_{EB} = 4V		-	-	150	nA
ON CHARACTERISTICS							
DC Current Gain	h_{FE}	I_C = 100mA, V_{CE} = 1V	P	100	-	200	-
			Q	150	-	300	
			R	200	-	400	
			S	300	-	600	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 800mA, I_B = 80mA		-	-	0.5	V

PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.89	1.11
A1	0.001	0.004	0.01	0.10
b	0.015	0.020	0.37	0.50
c	0.003	0.007	0.09	0.18
D	0.110	0.120	2.80	3.04
E	0.047	0.055	1.20	1.40
e	0.070	0.081	1.78	2.04
L	0.004	0.012	0.10	0.30
L1	0.014	0.029	0.35	0.69
H_E	0.083	0.104	2.10	2.64

IMPORTANT NOTICE

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