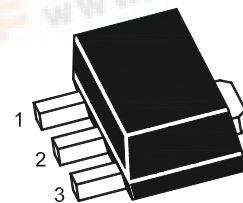


ST 2SD2150U

查询"2SD2150U"供应商

NPN Silicon Epitaxial Planar Transistor

Low frequency transistor



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current - DC Collector Current - Pulse ¹⁾	I_C I_{CP}	3 5 ¹⁾	A
Total Power Dissipation	P_{tot}	0.5 2 ²⁾	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_S	- 55 to + 150	$^\circ\text{C}$

¹⁾ Single pulse $P_w = 10$ ms.

²⁾ Mounted on a 40 X 40 X 0.7 mm ceramic substrate.

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 2$ V, $I_C = 100$ mA Current Gain Group R S	h_{FE} h_{FE}	180 270	- -	390 560	- -
Collector Base Breakdown Voltage at $I_C = 50$ μA	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1$ mA	$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at $I_E = 50$ μA	$V_{(BR)EBO}$	6	-	-	V
Collector Cutoff Current at $V_{CB} = 30$ V	I_{CBO}	-	-	100	nA
Emitter Cutoff Current at $V_{EB} = 5$ V	I_{EBO}	-	-	100	nA
Collector Emitter Saturation Voltage at $I_C = 2$ A, $I_B = 100$ mA	$V_{CE(sat)}$	-	-	0.5	V
Transition Frequency at $V_{CE} = 2$ V, $-I_E = 500$ mA, $f = 100$ MHz	f_T	-	290	-	MHz
Collector Output Capacitance at $V_{CE} = 10$ V, $I_E = 0$ A, $f = 1$ MHz	C_{ob}	-	25	-	pF

SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103

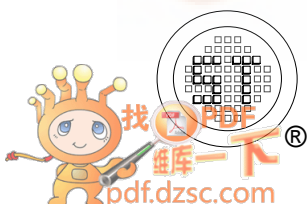


ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 15/05/2007



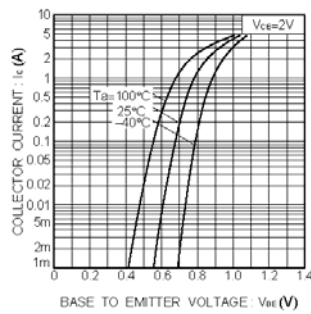


Fig.1 Grounded emitter propagation characteristics

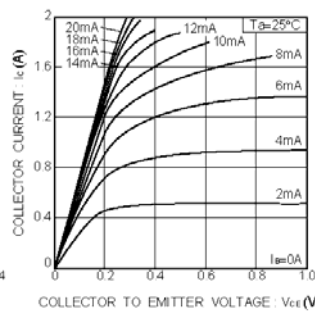


Fig.2 Grounded emitter output characteristics (I)

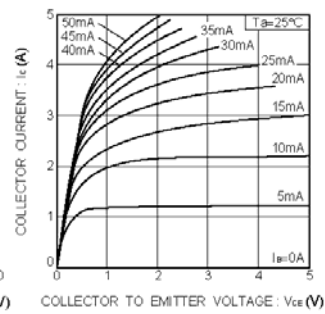


Fig.3 Grounded emitter output characteristics (II)

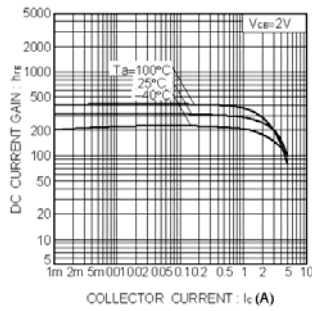


Fig.4 DC current gain vs. collector current

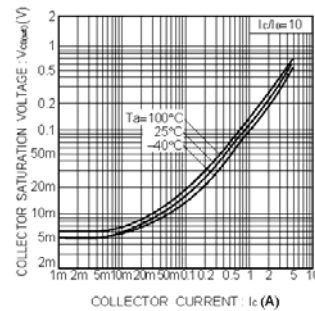


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

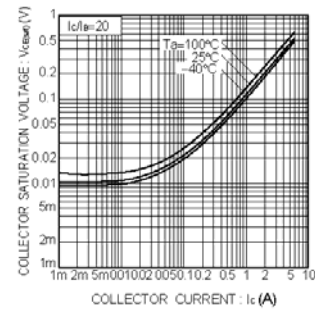


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

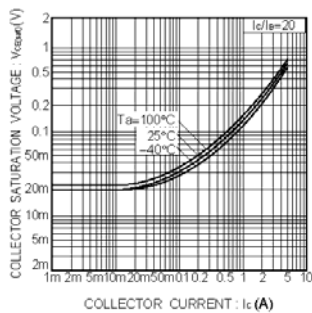


Fig.7 Collector-emitter saturation voltage vs. collector current (III)

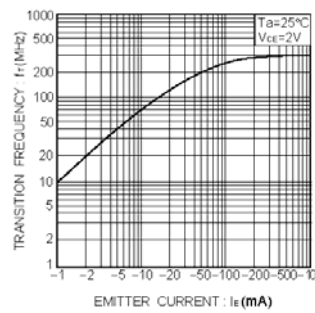


Fig.8 Gain bandwidth product vs. emitter current

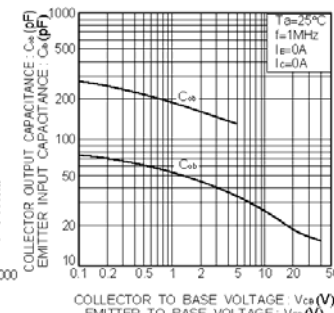
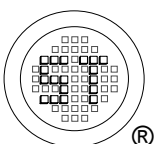


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116

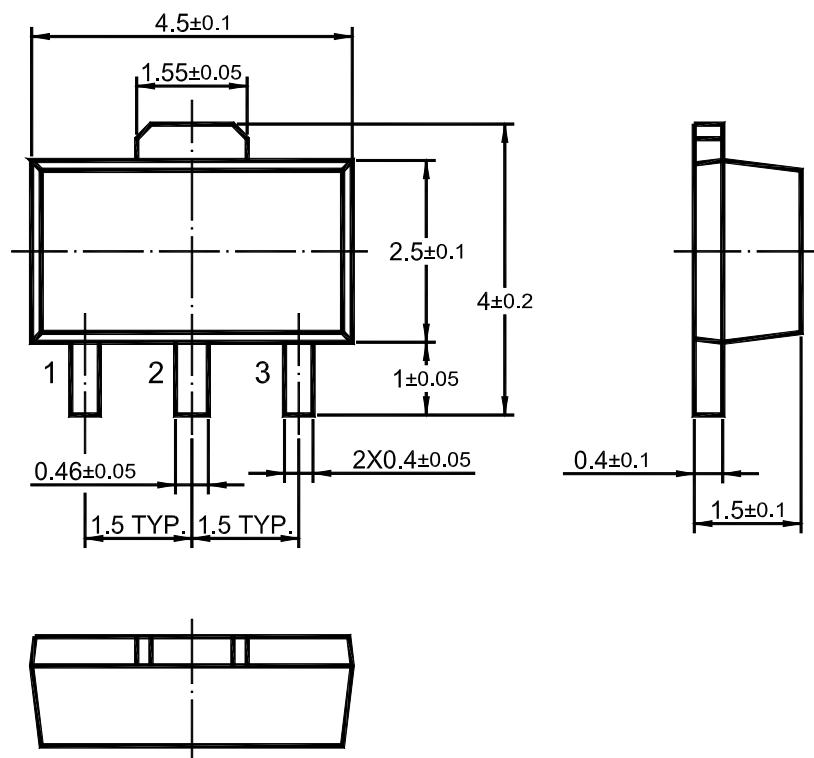


ISO 9001:2000
Certificate No. 0506098

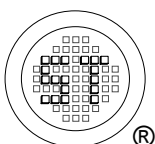
ST 2SD2150U

[查询"2SD2150U"供应商](#)

SOT-89 PACKAGE OUTLINE

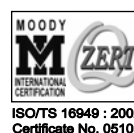


Dimensions in mm



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 15/05/2007