

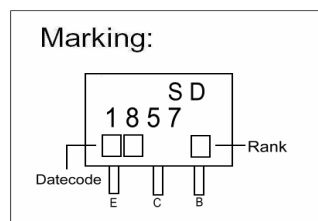
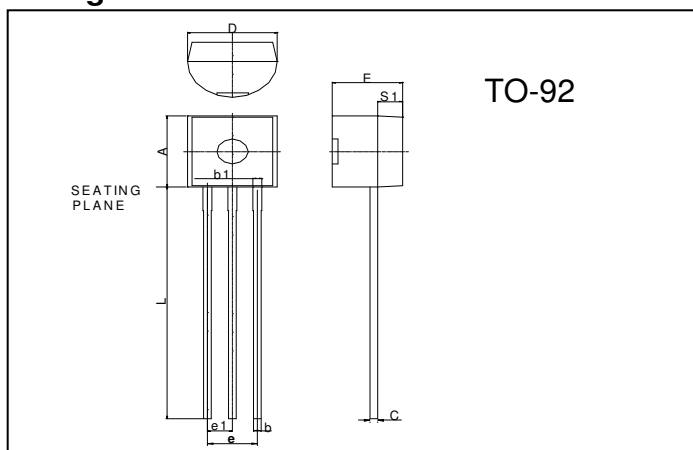
GSD1857 NPN EPITAXIAL PLANAR TRANSISTOR

POWER TRANSISTOR

FEATURES

- *High breakdown voltage. ($V_{CE0}=120V$).
- *Low collector output capacitance. (Type.20pF at $V_{CB}=10V$)
- *High transition frequency. ($f_T=80MHz$)

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

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

Parameter		Ratings	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5	V
Collect Current(DC)	I_C	2	A
Collect Current*(Pulse)	I_{CP}	3	A
Junction Temperature	T_j	+150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ C$
Total Power Dissipation	P_D	1	W

Electrical Characteristics ($T_a = 25^\circ C$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	120	-	-	V	$I_C=50\mu A$
V_{CEO}	120	-	-	V	$I_C=1mA$
V_{EBO}	5	-	-	V	$I_E=50\mu A$
I_{CBO}	-	-	1	μA	$V_{CB}=100V$
I_{EBO}	-	-	1	μA	$V_{BE}=4V$
* $V_{CE(sat)}$	-	-	400	mV	$I_C=1A, I_B=100mA$
h_{FE}	82	-	390		$V_{CE}=5V, I_C=0.1A$
f_T	-	80	-	MHz	$V_{CE}=5V, I_E=100mA, f=30MHz$
C_{ob}	-	20	-	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

Classification Of $h_{FE}1$

*Measured using pulse current.

Rank	P	Q	R
Range	82-180	120-270	180-390

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of GTM.
- GTM reserves the right to make changes to its products without notice.
- GTM semiconductor products are not warranted to be suitable for use in life-support Applications, or systems.
- GTM assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
- TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- **China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
- TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165