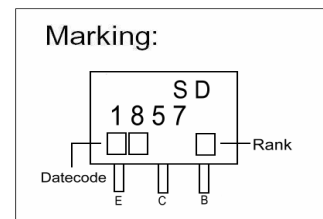
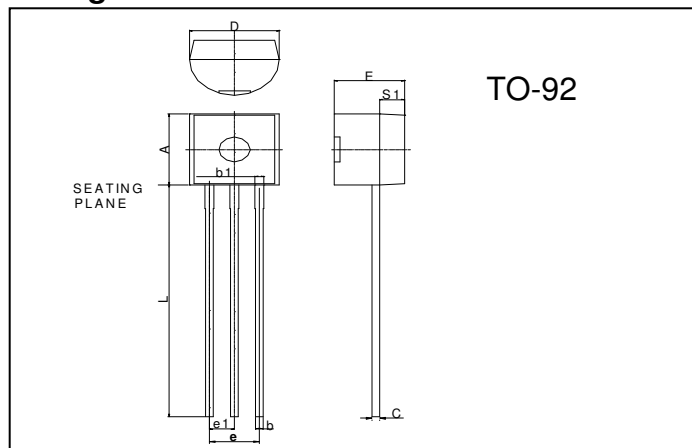


## GSD1857 NPN EPITAXIAL PLANAR TRANSISTOR

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	$\mu A$	$V_{CB}=100V$
$I_{EBO}$	-	-	1	$\mu A$	$V_{BE}=4V$
* $V_{CE(sat)}$	-	-	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

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