

BL Galaxy Electrical

Production specification

Silicon Epitaxial Planar Transistor

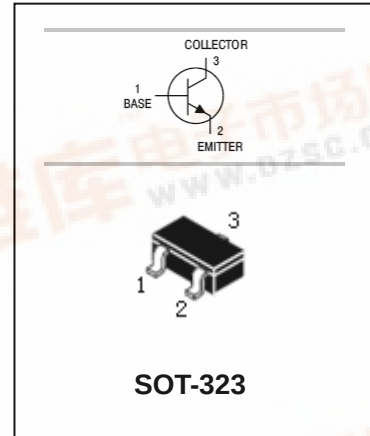
2SC4180W

FEATURES

- Excellent h_{FE} linearity.
- High voltage and current.
- Power dissipation $P_C=150mW$.
- Small package.



Lead-free



APPLICATIONS

- Audio frequency general purpose amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC4180W	D15/D16/D17/D18	SOT-323

MAXIMUM RATING @ $T_a=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	50	mA
P_C	Collector Dissipation	150	mW
T_j, T_{stg}	Junction and Storage Temperature	-55~150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS @ $T_a=25^{\circ}C$ unless otherwise specified



Silicon Epitaxial Planar Transistor

2SC4180W

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=120V, I_E=0$			0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.05	μA
DC current gain	h_{FE}	$V_{CE}=6V, I_C=1mA$ $V_{CE}=6V, I_C=1mA$	135 100		900	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.3	V
Transition frequency	f_T	$V_{CE}=6V, I_E=1mA$		250		MHz
Collector output capacitance	C_{ob}	$V_{CB}=30V, I_E=0, f=1MHz$			2.5	pF

CLASSIFICATION OF h_{FE}

Range	135-270	200-400	300-600	450-900
Marking	D15	D16	D17	D18

PACKAGE OUTLINE

Plastic surface mounted package

SOT-323

The image displays three views of an SOT-323 package:

- Top View:** Shows the rectangular body with dimensions A (width), B (height), and K (total height including leads). A central feature is labeled D.
- Side View:** Shows the profile of the package with dimension E (lead height) and J (lead thickness).
- Cross-sectional View:** Shows the internal structure with dimensions C (body thickness), G (lead spacing), and H (lead thickness).

SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

Silicon Epitaxial Planar Transistor

2SC4180W

PACKAGE INFORMATION

Device	Package	Shipping
2SC4180W	SOT-323	3000/Tape&Reel