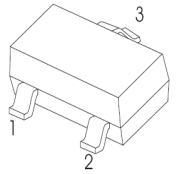
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23 Plastic-Encapsulate Transistors

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

2SD1782 TRANSISTOR (NPN)

FEATURES

- Low $V_{CE(sat)}$
- High BV_{CEO}
- Complements the 2SB1198

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA, I_E=0	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=2mA, I_B=0	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50V, I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			0.5	μA
DC current gain	$h_{FE(1)}$	V_{CE}=3V, I_C=100mA	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA			0.5	V
Transition frequency	f_T	V_{CE}=10V, I_C=50mA, f=100MHz		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		7.5		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R
Range	120-270	180-390
MARKING	**AJQ**	**AJR**