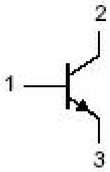
isc Silicon NPN Power Transistor 2SC2681



PIN 1. BASE
2. COLLECTOR
3. EMITTER

TO-3PML package

DESCRIPTION

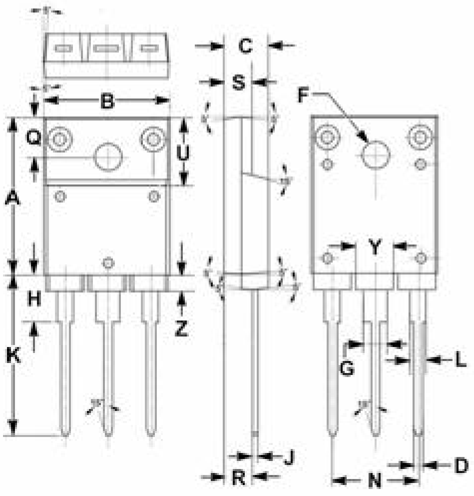
- Collector-Emitter Breakdown Voltage- $V_{(BR)CEO}$= 115V(Min)
- Good Linearity of h_{FE}
- Complement to Type 2SA1141
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	115	V
V_{CEO}	Collector-Emitter Voltage	115	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @ T_a=25℃	2.0	W
	Collector Power Dissipation @ T_C=25℃	100	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4.5A; I_B= 0.45A			1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 4.5A; V_{CE}= 2V			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 80V; I_E= 0			50	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			50	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 2V	60		200	
h_{FE-2}	DC Current Gain	I_C= 4.5A; V_{CE}= 2V	40			
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f= 1.0MHz		230		pF
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 2V		80		MHz

◆ h_{FE-1} Classifications

R	Q
60-120	100-200