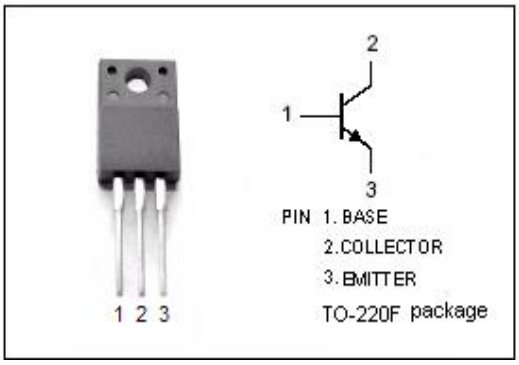
isc Silicon NPN Power Transistor 2SD2137

DESCRIPTION

- Silicon NPN triple diffusion planar type
- Complementary to 2SB1417
- Low Collector to Emitter Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Allowing supply with the radial taping

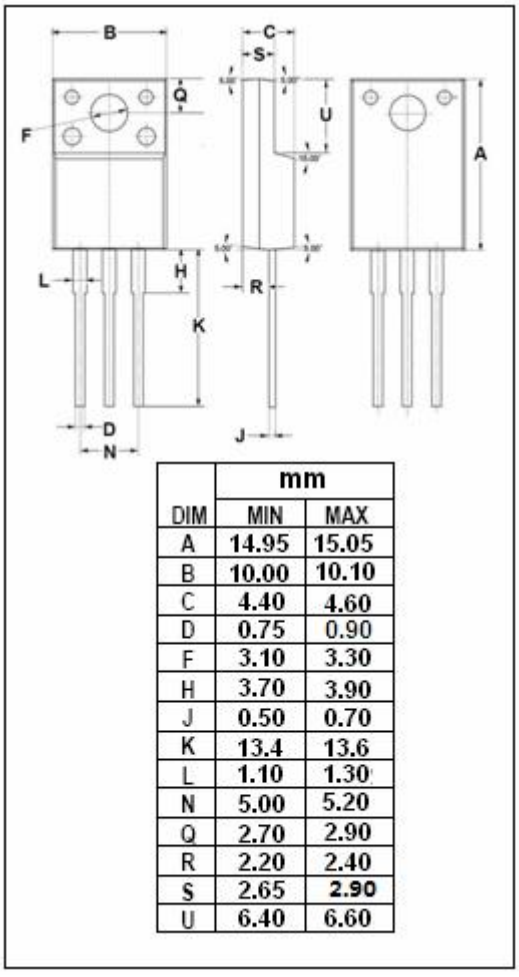


APPLICATIONS

- Designed for power amplifiers

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Pulse	5	A
P_T	Total Power Dissipation @T_C=25℃	15	W
	Total Power Dissipation @T_a=25℃	2	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=30mA, Ib=0	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.375A			1.2	V
$V_{BE(ON)}$	Base-Emitter On Voltage	I_C= 3A; V_{CE}= 4V			1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 60V; I_E= 0			100	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 30V; Ib=0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			100	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 4V	70		250	
h_{FE-2}	DC Current Gain	I_C= 3A; V_{CE}=4V	10			
f_T	Current-Gain—Bandwidth Product	I_C= 0.2A; V_{CE}= 5V		30		MHz
Switching times						
t_{on}	Turn-on Time	I_C= 1A I_{B1}= -I_{B2}= 0.1A,V_{CC}≈ 50V		0.3		μs
t_{stg}	Storage Time			2.5		μs
t_f	Fall Time			0.2		μs

◆ **h_{FE-1} Classifications**

Q	P
70-150	120-250

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