

isc Silicon PNP Darlington Power Transistor

2SB1077

DESCRIPTION

- Silicon NPN triple diffused
- Low Collector-Emitter Saturation Voltage
- Complement to Type 2SD1558
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

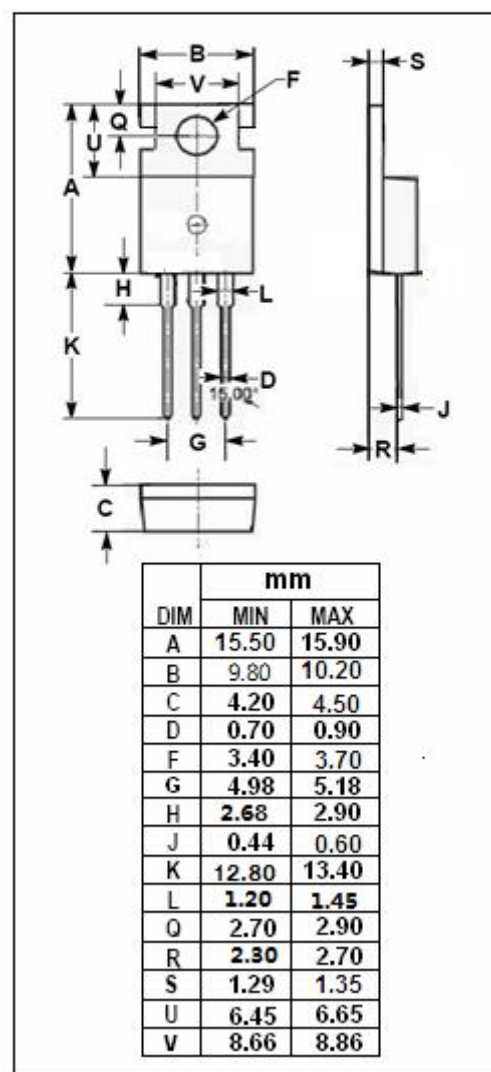
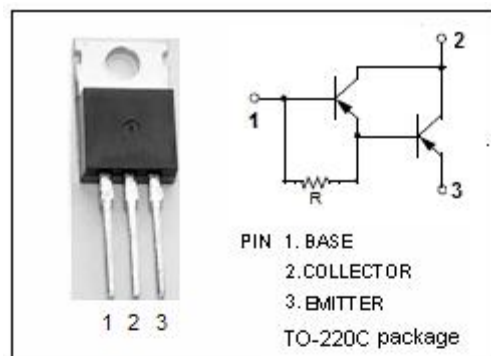
- Designed for low frequency power amplifier

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-60	V
V _{EBO}	Emitter-Base Voltage	-7	V
I _C	Collector Current-Continuous	-4	A
I _{CM}	Collector Current-Peak	-8	A
P _C	Collector Power Dissipation T _C =25°C	40	W
	Collector Power Dissipation T _a =25°C	2	
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	3.125	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	62.5	°C/W



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ELECTRICAL CHARACTERISTICS

 $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -25\text{mA}$, $I_B = 0$	-60			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -4\text{mA}$			-1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation voltage	$I_C = -4\text{A}$, $I_B = -40\text{mA}$			-3.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = -2\text{A}$, $I_B = -4\text{mA}$			-2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = -4\text{A}$, $I_B = -40\text{mA}$			-3.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -60\text{V}$, $I_E = 0$			-0.1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -50\text{V}$, $I_B = 0$			-10	uA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-5	mA
h_{FE}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -3\text{V}$	1000		20000	

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