

isc Silicon NPN Power Transistors
2SD382
DESCRIPTION

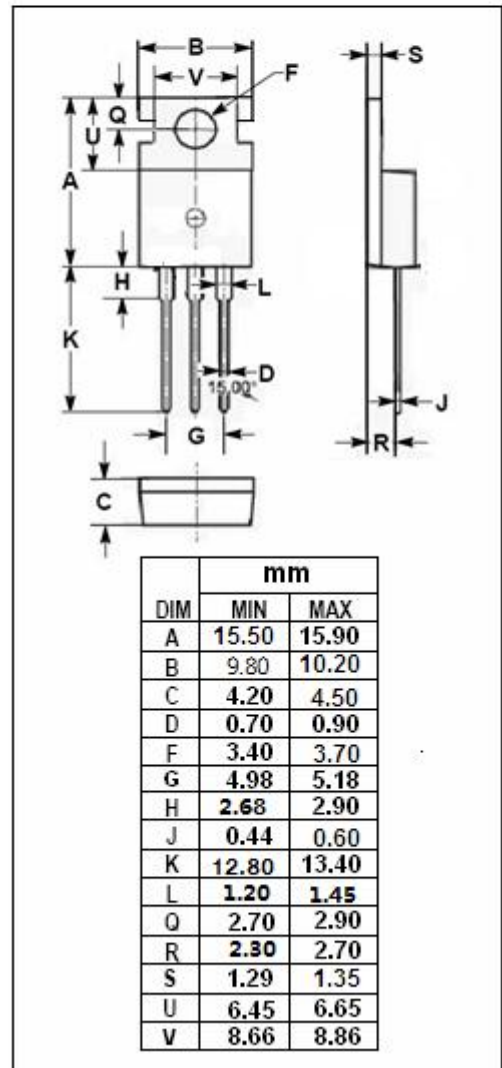
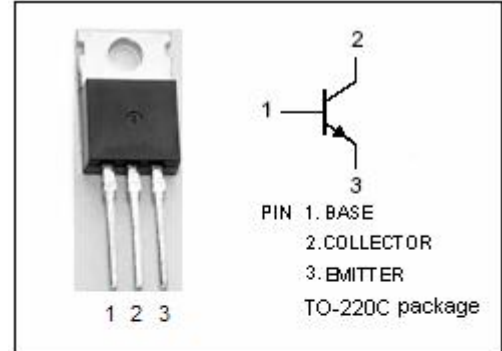
- Collector-Emitter Breakdown Voltage:
: $V_{(BR)CEO} = 120V(\text{Min.})$
- Complement to Type 2SB537
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio frequency power amplifier, low speed switching.
- Suitable for driver of 60~100 watts audio amplifier.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	130	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_{CM}	Collector Current-Peak	3.0	A
I_B	Base Current	0.3	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	20	W
	Collector Power Dissipation@ $T_a=25^\circ\text{C}$	1.5	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistors**2SD382****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V; I _E = 0			1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 3V; I _C = 0			1.0	μ A
h _{FE-1}	DC Current Gain	I _C = 5mA ; V _{CE} = 5V	25			
h _{FE-2}	DC Current Gain	I _C = 0.3A ; V _{CE} = 5V	40		250	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 0.1MHz		25		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 5V		45		MHz

◆ **h_{FE-2} Classifications**

N	M	L	K
40-80	60-120	80-160	120-250

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