

isc Silicon NPN Power Transistor

2SD1266

DESCRIPTION

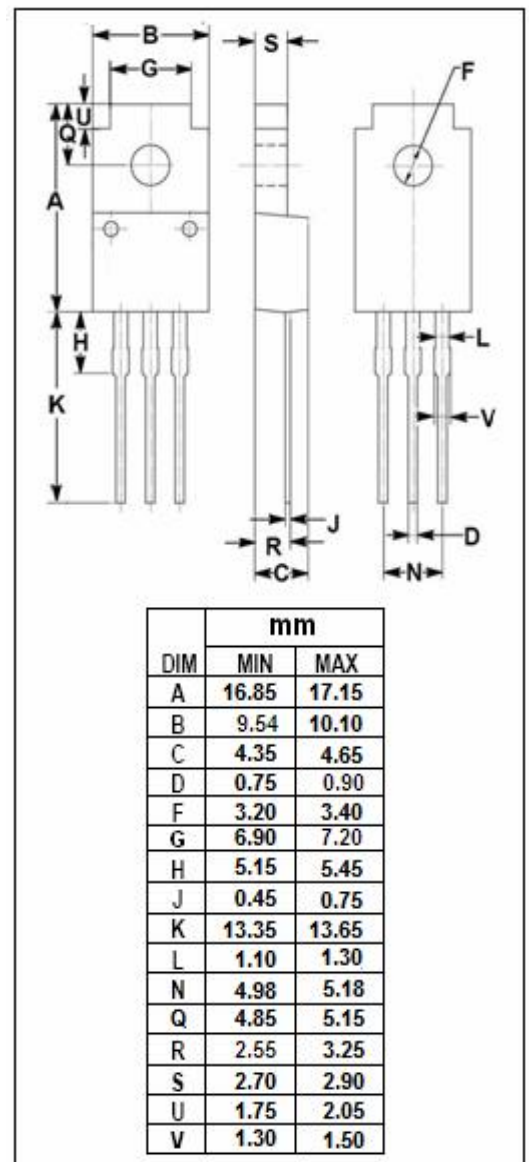
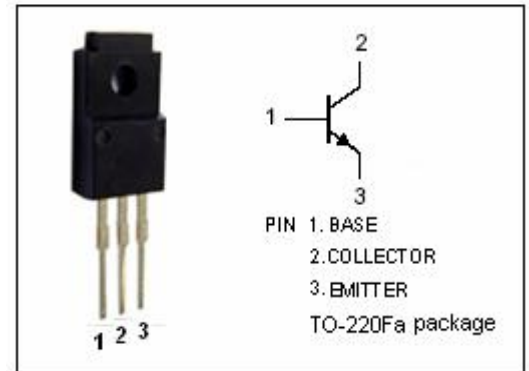
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 1.2V(\text{Max}) @ I_C = 3A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V (\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SB941
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplification.

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

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-Peak	5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	35	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA ; I _B = 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 _{CES}	Collector Cutoff Current	V _{CE} = 60V ; V _{BE} = 0			0.2	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V ; I _B = 0			0.3	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V ; I _C = 0			1.0	mA
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 = 0.5A ; V _{CE} = 10V ; f= 10MHz		30		MHz
Switching times						
t _{on}	Turn-on Time	I _C = 1A ; I _{B1} = I _{B2} = 0.1A ; V _{CC} = 50V		0.5		μs
t _{stg}	Storage Time			2.5		μs
t _f	Fall Time			0.4		μs

◆ h_{FE-1} classifications

Q	P
70-150	120-250

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