

isc Silicon NPN Power Transistor

2SD2374

DESCRIPTION

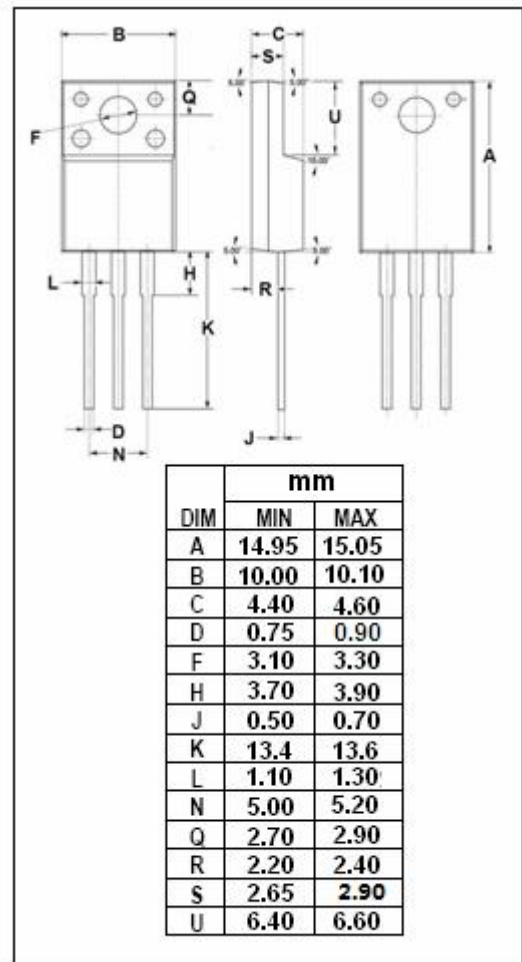
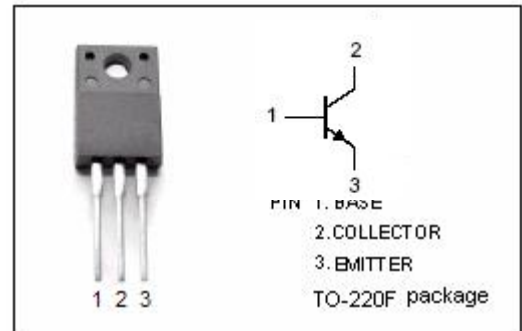
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Collector Power Dissipation-
: $P_C = 25 W @ T_C = 25^\circ C$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.2V(\text{Max}) @ (I_C = 3A, I_B = 0.375A)$
- Complement to Type 2SB1548
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifications.

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

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 @ $T_a = 25^\circ C$	2	W
	Collector Power Dissipation @ $T_C = 25^\circ C$	25	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_j=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			200	μA
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V; I _B = 0			300	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			1	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 _{test} = 10MHz		30		MHz

◆ h_{FE-1} Classifications

Q	P
70-150	120-250

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