

isc Silicon NPN Power Transistor
KSD1408
DESCRIPTION

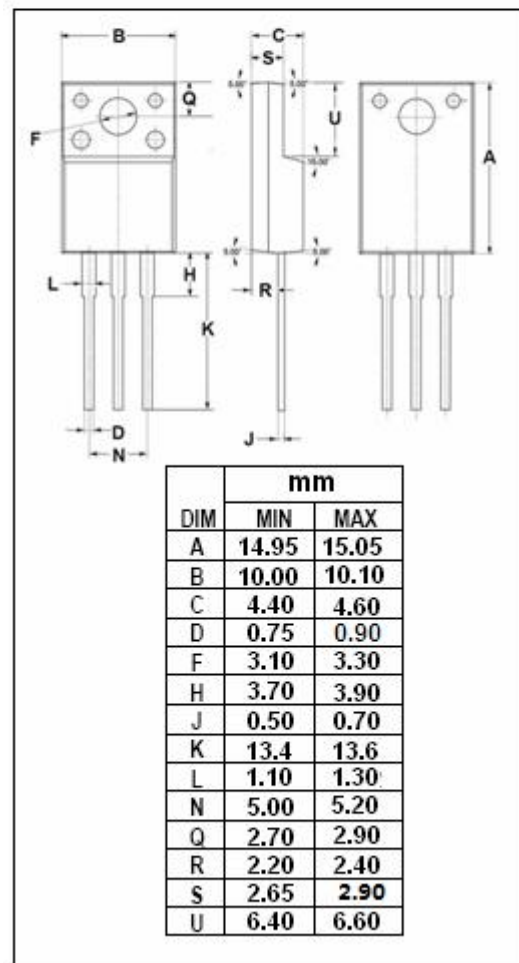
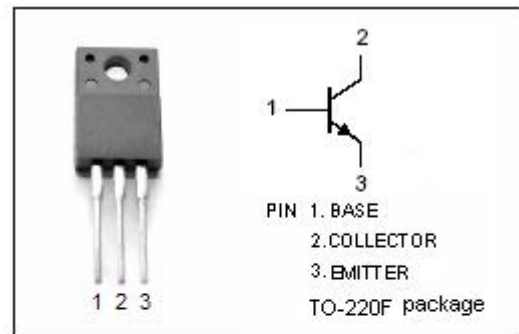
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 3A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80V(\text{Min})$
- Complement to Type KSB1017
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_B	Base Current-Continuous	0.4	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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 = 50mA ; I _B = 0	80			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.3A			1.5	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 3A; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 80V; I _E = 0			30	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 0.5A; V _{CE} = 5V	40		240	
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 5V	15			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V, f _{test} = 1MHz		90		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 5V		8		MHz

◆ h_{FE} classifications

R	O	Y
40-80	70-140	120-240

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