

isc Silicon NPN Power Transistors
KSE44H Series
DESCRIPTION

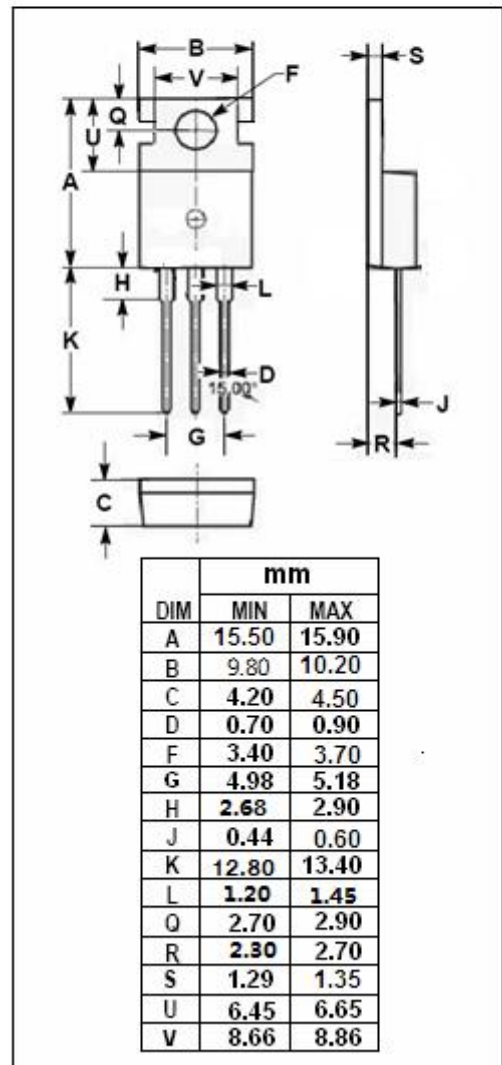
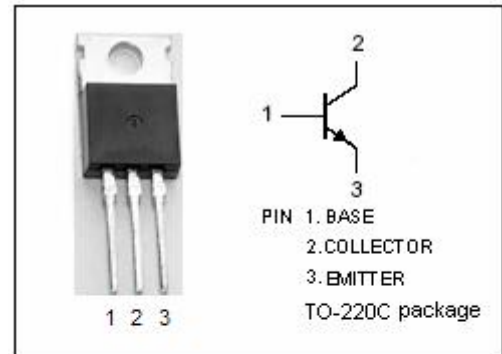
- Low Saturation Voltage
- Fast Switching Speeds
- Complement to Type KSE45H Series
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for general purpose power switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CEO}	Collector-Emitter Voltage	KSE44H 1,2	30
		KSE44H 4,5	45
		KSE44H 7,8	60
		KSE44H 10,11	80
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current-Continuous	10	A
I _{CM}	Collector Current-Peak	20	A
P _C	Collector Power Dissipation @T _C =25°C	50	W
P _a	Collector Power Dissipation @T _a =25°C	1.67	W
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	KSE44H1,4,7,10	I _C = 8A ; I _B = 0.8 A			1	V
		KSE44H2,5,8,11	I _C = 8A ; I _B = 0.4 A				
V _{BE(sat)}	Base-Emitter Saturation Voltage		I _C = 8A ; I _B = 0.8 A			1.5	V
I _{CES}	Collector Cutoff Current		V _{CE} =Rated V _{CEO} ;			10	μ A
I _{EBO}	Emitter Cutoff Current		V _{EB} = 5V; I _C = 0			100	μ A
h _{FE}	DC Current Gain	KSE44H1,4,7,10	I _C = 2A ; V _{CE} = 1V	35			
		KSE44H2,5,8,11		60			
C _{OB}	Output Capacitance		V _{CB} = 10V, f= 1.0MHz		130		pF
f _T	Current-Gain—Bandwidth Product		I _C =0.5A; V _{CE} =10V; f _{test} =20 MHz		50		MHz

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