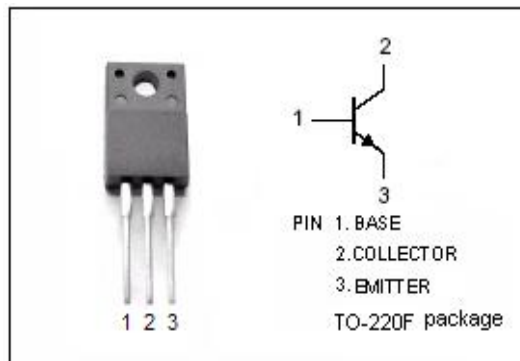


isc Silicon NPN Power Transistor
KSC5027F
DESCRIPTION

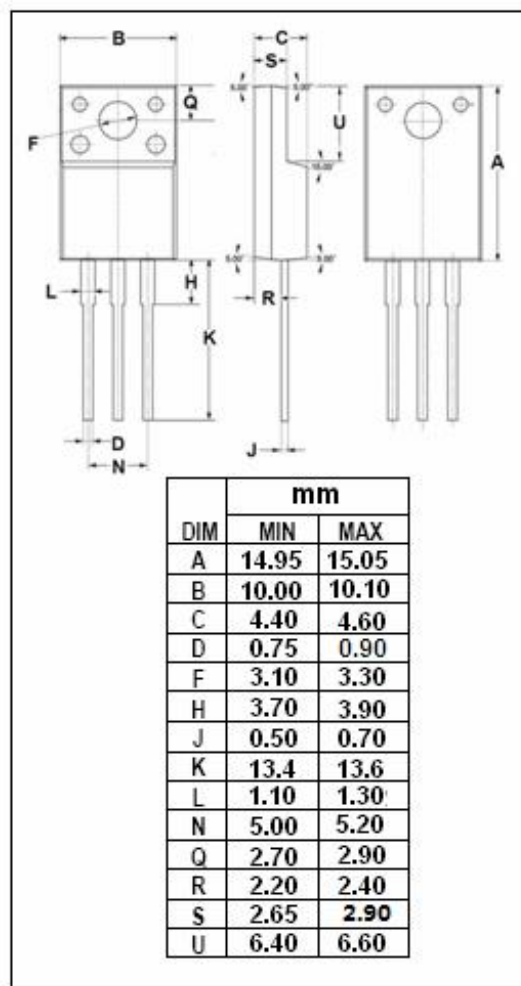
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 800V(\text{Min})$
- Fast Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulator and high voltage switching applications
- High speed DC-DC converter applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1100	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**KSC5027F****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 1.5\text{A}; I_B= 0.3\text{A}$	800			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 5\text{mA}; R_{BE}= \infty$	800			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C= 1\text{mA}; I_E= 0$	1100			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 1\text{mA}; I_C= 0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 1.5\text{A}; I_B= 0.3\text{A}$			2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 1.5\text{A}; I_B= 0.3\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 800\text{V}; I_E= 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5\text{V}; I_C= 0$			10	μA
h_{FE-1}	DC Current Gain	$I_C= 0.2\text{A}; V_{CE}= 5\text{V}$	10		40	
h_{FE-2}	DC Current Gain	$I_C= 1\text{A}; V_{CE}= 5\text{V}$	8			

◆ **h_{FE-1} Classifications**

K	L	M
10~20	15~30	20~40

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