

isc Silicon PNP Power Transistor

2SA1615

DESCRIPTION

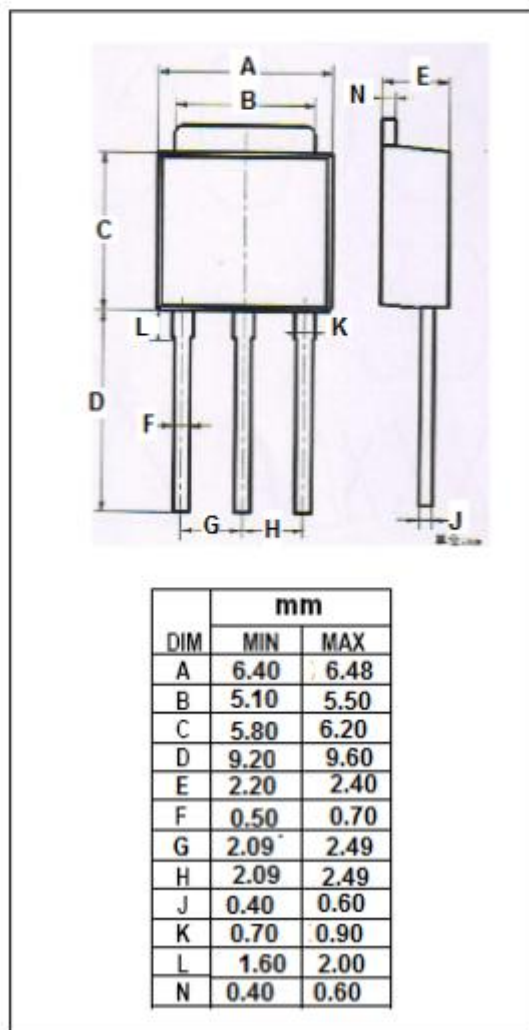
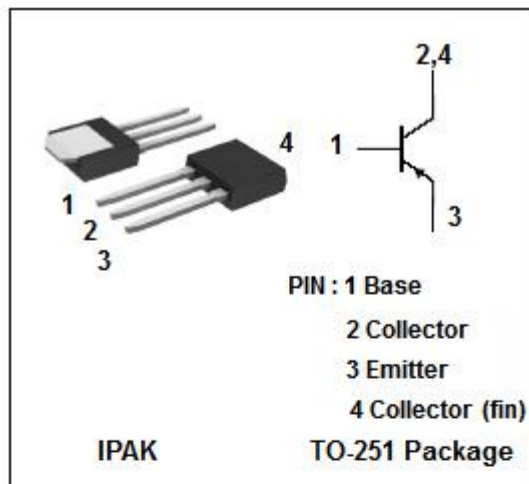
- Large current capacity: $I_{C(DC)} = -10A$ $I_{C(pulse)} = -15A$
- High h_{FE} and low saturation voltage:
 $h_{FE} = 200min$ ($V_{CE} = -2V, I_C = -0.5A$)
 $V_{CE(sat)} \leq -0.25V$ ($I_C = -4A, I_B = -0.05A$)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- The 2SA1615 is available for the large current control in small dimension due to the low saturation and is ideal for high efficiency DC/AC converters due to the fast switching speed

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-10	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Peak	-15	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	15	W
	Collector Power Dissipation @ $T_a = 25^\circ C$	1.0	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)} ^{NOTE}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B = -50mA			-0.25	V
V _{BE(sat)} ^{NOTE}	Base-Emitter Saturation Voltage	I _C = -4A; I _B = -50mA			-1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -20V; I _E = 0			-1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -8V; I _C = 0			-1.0	μ A
h _{FE-1} ^{NOTE}	DC Current Gain	I _C = -0.5A; V _{CE} = -2V	200		600	
h _{FE-2} ^{NOTE}	DC Current Gain	I _C = -4A; V _{CE} = -2V	160			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = -10V; f= 1.0MHz		220		pF
f _T	Current-Gain—Bandwidth Product	I _C = -1.5A; V _{CE} = -5V		180		MHz

NOTE:Pulse test PW≤350us,duty cycle ≤2%

◆ h_{FE-1} Classifications

L	K
200-400	300-600

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