NPN SILICON EPITAXIAL POWER TRANSISTOR

… designed for power linear and switching applications.
… complementary to BD908.

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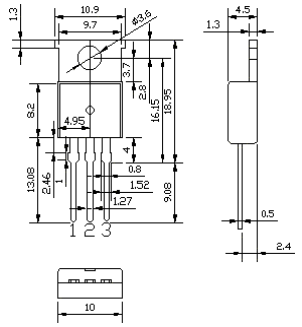

1 : Base
2 : Collector (Heat Sink)
3 : Emitter

Weight: 1.9g Unit in mm

MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Collector Base Voltage (I_E=0)	V_{CBO}	60	V
Collector Emitter Voltage (I_B=0)	V_{CEO}	60	V
Emitter Base Voltage (I_C=0)	V_{EBO}	5	V
Collector Current	I_C, I_E	15	A
Base Current	I_B	5	A
Total Power Dissipation $T_C \leq 25°C$	P_{tot}	90	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-65 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_C = 25 °C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cutoff Current	I_{CBO}	V_{CB}=60V, I_E=0	-	-	500	μA
		V_{CB}=60V, I_E=0, T_C=150°C	-	-	5	mA
Collector Cutoff Current	I_{CEO}	V_{CB}=30V, I_B=0	-	-	1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	1	mA
DC Current Gain	h_{FE}*	V_{CE}=4V, I_C=0.5A	40	-	250	-
		V_{CE}=4V, I_C=5A	15	-	150	-
		V_{CE}=4V, I_C=10A	5	-	-	-
Collector Emitter Saturation Voltage	$V_{CE(sat)}$*	I_B=0.5A, I_C=5A	-	-	1	V
		I_B=2.5A, I_C=10A	-	-	3	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$*	I_B=2.5A, I_C=10A	-	-	2.5	V
Base Emitter Voltage	V_{BE}*	V_{CE}=4V, I_C=5A	-	-	1.5	V
Collector Emitter Sustaining Voltage	$V_{CE(sus)}$*	I_B=0, I_C=100mA	60	-	-	V
Transition Frequency	f_T	V_{CE}=4V, I_C=0.5A	3	-	-	MHz

*Pulsed: Pulse duration=300μs, duty cycle1.5%.

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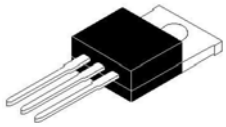

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