

isc Silicon NPN Power Transistor

BDY48

DESCRIPTION

- Collector-Emitter Breakdown Voltage-: V_{(BR)CEO}= 200V (Min)
- Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

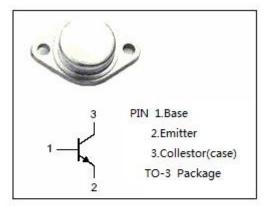
• Designed for use in series regulators, power amplifiers, Inverters, deflection circuits, switching regulators, and high voltage bridge amplifiers..

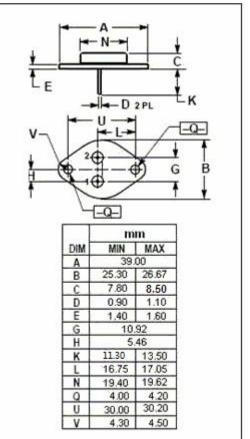
ABSOLUTE MAXIMUM RATINGS(Ta=25 C)							
SYMBOL	PARAMETER VALUE		UNIT				
V _{CBO}	Collector-Base Voltage	200	V				
V_{CEO}	Collector-Emitter Voltage	200	V				
V _{EBO}	Emitter-Base Voltage	e 6					
lc	Collector Current-Continuous	3.5	A				
Pc	Collector Power Dissipation	100	W				
TJ	Junction Temperature	150	°C				
T _{stg}	Storage Temperature Range	-55~150	°C				

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.75	°C/W





isc website: <u>www.iscsemi.com</u>



isc Silicon NPN Power Transistor

BDY48

ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =3A; I _B = 0.3A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =3A; I _B = 0.3A			1.5	V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 25mA; I _B = 0	200			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
h _{FE-1}	DC Current Gain	I _C =1A; V _{CE} = 5V	80		200	
h _{FE-2}	DC Current Gain	I _C =3A; V _{CE} = 5V	30			
I _{CBO}	Collector Cutoff Current	V _{CB} =200V ; I _E = 0			100	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} =6V; I _C = 0			100	uA
f⊤	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 10V; f _{test} = 1.0MHz	5			MHz

NOTICE:

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.