

# **ISC Silicon NPN Power Transistor**

## **DESCRIPTION**

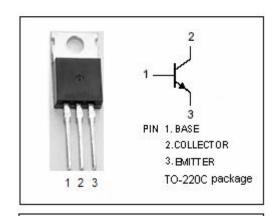
- · Collector-Emitter Breakdown Voltage-
  - : V<sub>(BR)CEO</sub>= 80V (Min)
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

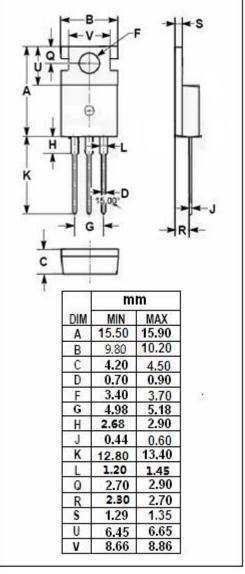
## **APPLICATIONS**

 Designed for power switching and TV horizontal deflection output applications.

# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	200	V	
V <sub>CEO</sub>	Collector-Emitter Voltage 80		V	
V <sub>EBO</sub>	Emitter-Base Voltage 5		V	
Ic	Collector Current-Continuous 4		А	
Ісм	Collector Current-Peak 5		А	
I <sub>C(surge)</sub>	Collector Current-Surge	15	А	
P <sub>C</sub>	Collector Power Dissipation @ T <sub>a</sub> =25℃	1.8	w	
	Collector Power Dissipation @ T <sub>C</sub> =25℃	30		
TJ	Junction Temperature	150	$^{\circ}$ C	
T <sub>stg</sub>	Storage Temperature Range	-45~150	$^{\circ}$ C	







## isc Silicon NPN Power Transistor

2SD1136

## **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA ; R <sub>BE</sub> = ∞	80			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 1mA; I <sub>E</sub> = 0	200			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.4A			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.4A			1.5	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 150V; R <sub>BE</sub> = 0			1.0	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 4A; V <sub>CE</sub> = 5V	20			
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 3.5A; I <sub>B1</sub> = 0.45A, L <sub>B</sub> = 0			1.0	μ \$

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