

# **isc** Silicon NPN Darlington Power Transistor

# 2SC4574

### DESCRIPTION

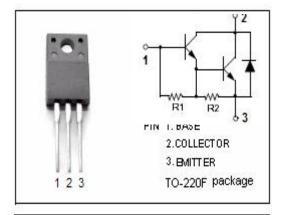
- Collector-Emitter Breakdown Voltage-: V<sub>(BR)CEO</sub>= 50V(Min)
- Collector-Emitter Saturation Voltage-
- : V<sub>CE(sat)</sub>= 1.5V(Max) @I<sub>C</sub>= 3A
- High DC Current Gain
- :  $h_{FE}$ = 2000(Min) @ I<sub>C</sub>= 1.5A, V<sub>CE</sub>= 3V • Minimum Lot-to-Lot variations for robust device
- performance and reliable operation

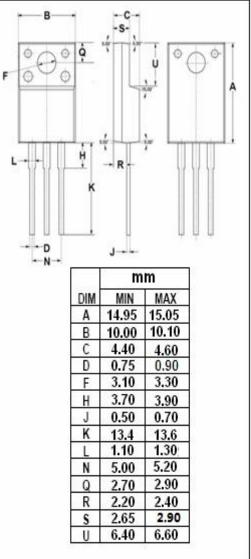
#### **APPLICATIONS**

- High power switching applications
- · Hammer driver, pulse motor driver applications

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	50	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V	
$V_{\text{EBO}}$	Emitter-Base Voltage	6	V	
lc	Collector Current-Continuous	4	A	
I <sub>CM</sub>	Collector Current-Peak	7	А	
IB	Base Current-Continuous	0.7	А	
Pc	Collector Power Dissipation @ $T_C$ =25°C	30	W	
TJ	Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C	

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)





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



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## **ELECTRICAL CHARACTERISTICS**

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 30mA ; I <sub>B</sub> = 0	50			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 6mA			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 6mA			2.0	V
І <sub>сво</sub>	Collector Cutoff Current	$V_{CB}$ = 50V; I <sub>E</sub> = 0			100	μA
Іево	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			3.0	mA
h <sub>FE -1</sub>	DC Current Gain	I <sub>C</sub> = 1.5A ; V <sub>CE</sub> = 3V	2000		15000	

## **NOTICE:**

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