



# isc Silicon PNP Darlington Power Transistor

### **DESCRIPTION**

**APPLICATIONS** 

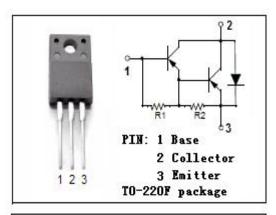
- · Collector-Emitter Breakdown Voltage-
- : V<sub>(BR)CEO</sub>= -80V(Min)
- · High DC Current Gain-
  - :  $h_{FE}$ = 1000(Min)@ ( $V_{CE}$ = -3V,  $I_{C}$ = -2A)
- · Complement to Type 2SD2399
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

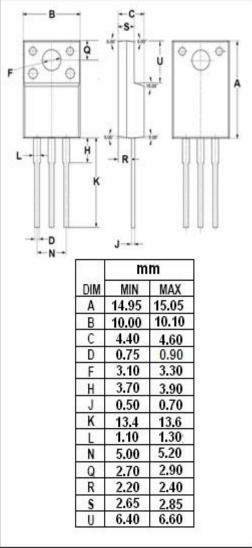


• Designed for power amplifier applications.

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	-80	V	
$V_{CEO}$	Collector-Emitter Voltage	-80	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-7	V	
lc	Collector Current-Continuous	-4	Α	
I <sub>CM</sub>	Collector Current-Peak	-6	А	
Pc	Collector Power Dissipation @T <sub>a</sub> =25°C	2	W	
	Collector Power Dissipation @T <sub>C</sub> =25℃	30		
TJ	Junction Temperature	150	$^{\circ}$ C	
T <sub>stg</sub>	Storage Temperature	-55~150	$^{\circ}$	







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2SB1568

### **ELECTRICAL CHARACTERISTICS**

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA; I <sub>B</sub> = 0	-80			V
V <sub>(BR)</sub> CBO	Collector-Base Breakdown Voltage	I <sub>C</sub> = -50 μ A; I <sub>E</sub> = 0	-80			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -5mA; I <sub>C</sub> = 0	-7			V
V <sub>CE(sat)⋆1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -2A; I <sub>B</sub> = -4mA		-1.0		V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = -80V; I <sub>E</sub> = 0			-100	μА
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-3.0	mA
h <sub>FE★1</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -3V	1000		10000	
Сов	Collector Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz		35		pF

<sup>★1:</sup>Measured using pulse current.

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