

**isc Silicon PNP Darlington Power Transistor****2SB1588****DESCRIPTION**

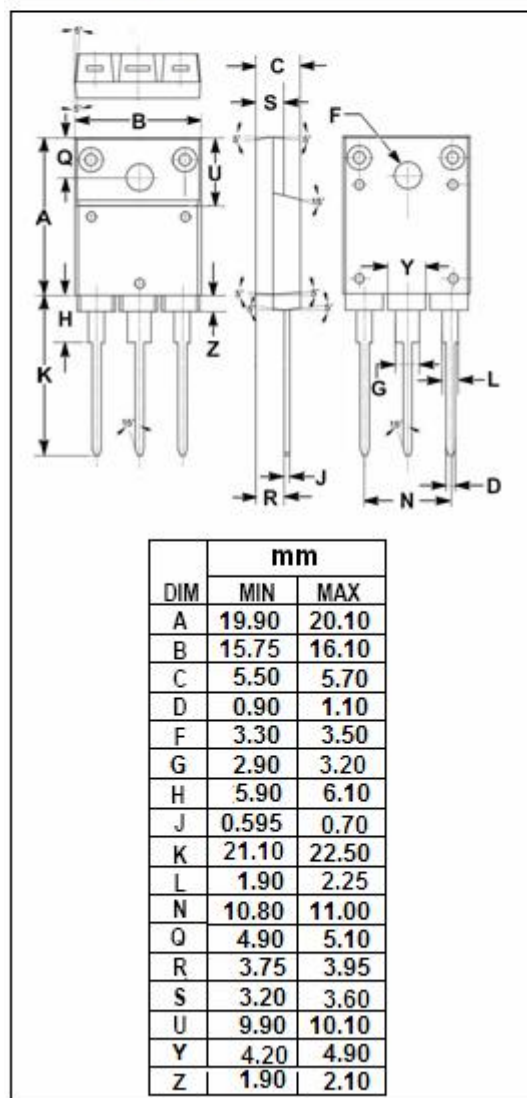
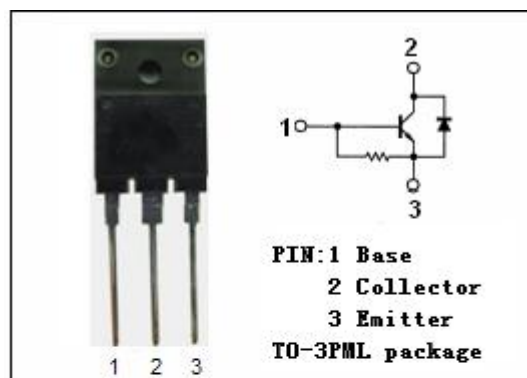
- High DC Current Gain-  
:  $h_{FE} = 5000(\text{Min}) @ I_C = -7\text{A}$
- Low-Collector Saturation Voltage-  
:  $V_{CE(\text{sat})} = -2.5\text{V}(\text{Max.}) @ I_C = -7\text{A}$
- Complement to Type 2SD2439
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for audio, series regulator and general purpose applications.

**ABSOLUTE MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-150	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-10	A
$I_B$	Base Current- Continuous	-1	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	80	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Darlington Power Transistor****2SB1588****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -30mA; I <sub>B</sub> = 0	-150			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -7mA			-2.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -7mA			-3.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -160V; I <sub>E</sub> = 0			-100	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -7A; V <sub>CE</sub> = -4V	5000		30000	
C <sub>OB</sub>	Collector Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz		230		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -2A; V <sub>CE</sub> = -12V		50		MHz

**◆ h<sub>FE</sub> Classifications**

O	P	Y
5000-12000	6500-20000	15000-30000

**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.