

**isc Silicon NPN Power Transistor**
**2SC5387**
**DESCRIPTION**

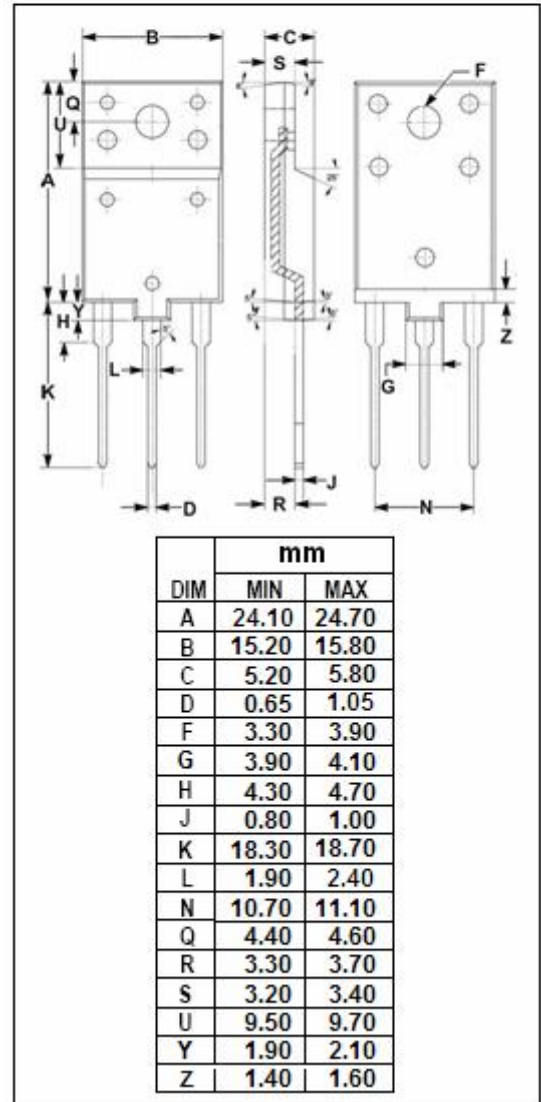
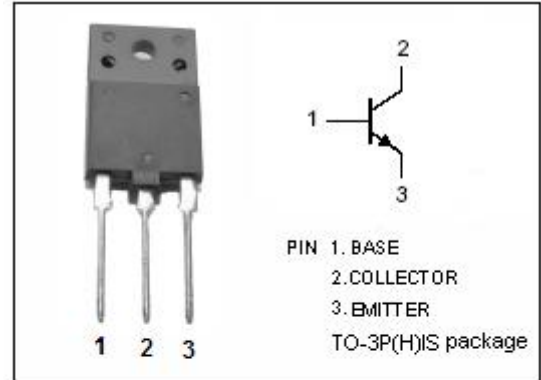
- High Breakdown Voltage-  
:  $V_{CBO} = 1200V$  (Min)
- High Switching Speed
- Low Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Horizontal deflection output for high resolution display, color TV.
- High speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1200	V
$V_{CEO}$	Collector-Emitter Voltage	600	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current- Continuous	10	A
$I_{CM}$	Collector Current- Pulse	20	A
$I_B$	Base Current- Continuous	5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ C$	50	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



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## 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> = 10mA; I <sub>B</sub> = 0	600			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 2A			3.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 2A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 1200V; I <sub>E</sub> = 0			1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			10	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V	15		35	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 8A ; V <sub>CE</sub> = 5V	4.3		7.8	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.1A ; V <sub>CE</sub> = 10V		1.7		MHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1.0MHz		130		pF
t <sub>stg</sub>	Storage Time	I <sub>CP</sub> = 6A , I <sub>B1(end)</sub> = 1.2A; f <sub>H</sub> = 64kHz		2.5	3.5	μ s
t <sub>f</sub>	Fall Time			0.15	0.3	μ s

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