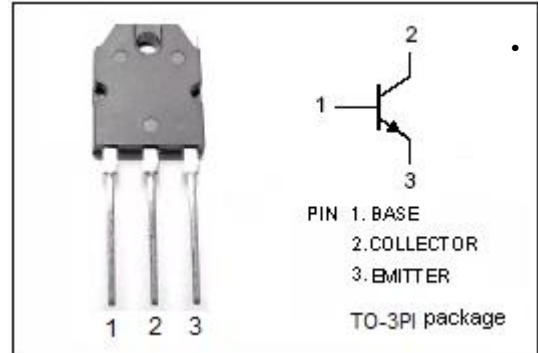


**isc Silicon NPN Power Transistor**
**2SC3376**
**DESCRIPTION**

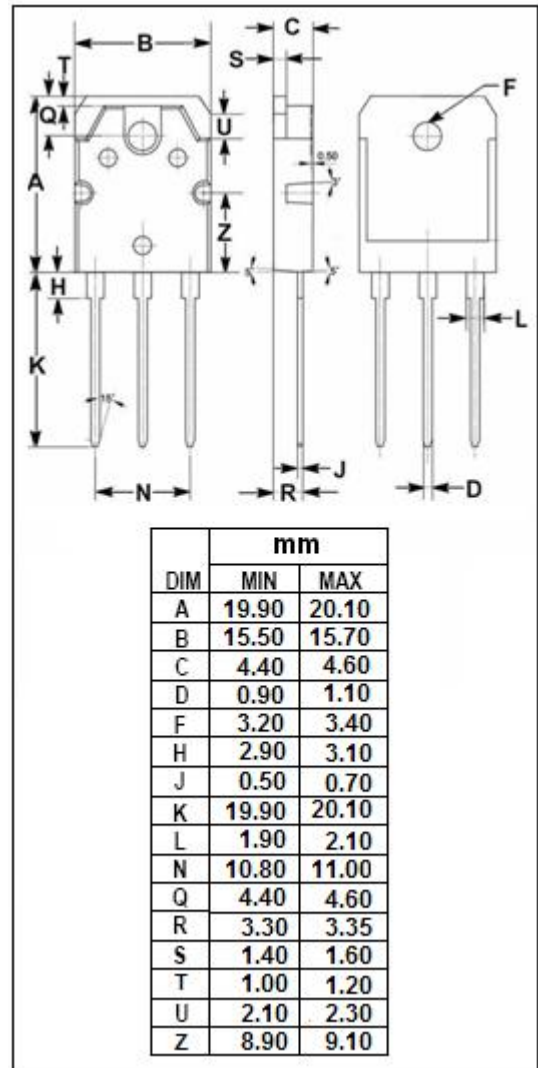
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 800V(\text{Min.})$
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**


- Switching regulator and high voltage switching applications.
- High speed DC-DC converter applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	900	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	3	A
$I_{CM}$	Collector Current-Peak	5	A
$I_B$	Base Current-Continuous	1	A
$P_C$	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	60	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor**
**2SC3376**
**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	800			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 1mA; I <sub>E</sub> = 0	900			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 0.8A; I <sub>B</sub> = 0.16A			0.6	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage 	I <sub>C</sub> = 0.8A; I <sub>B</sub> = 0.16A			1.2	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 800V; I <sub>E</sub> = 0			0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7V; I <sub>C</sub> = 0			1.0	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.8A; V <sub>CE</sub> = 5V	10			

Switching Times; Resistive Load

t <sub>r</sub>	Rise Time	I <sub>B1</sub> = 0.08A; I <sub>B2</sub> = -0.2A; V <sub>CC</sub> ≈ 400V; R <sub>L</sub> = 500Ω			1.0	μs
t <sub>s</sub>	Storage Time				4.0	μs
t <sub>f</sub>	Fall Time				1.0	μs

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