

isc Silicon NPN Power Transistor
2SC5043
DESCRIPTION

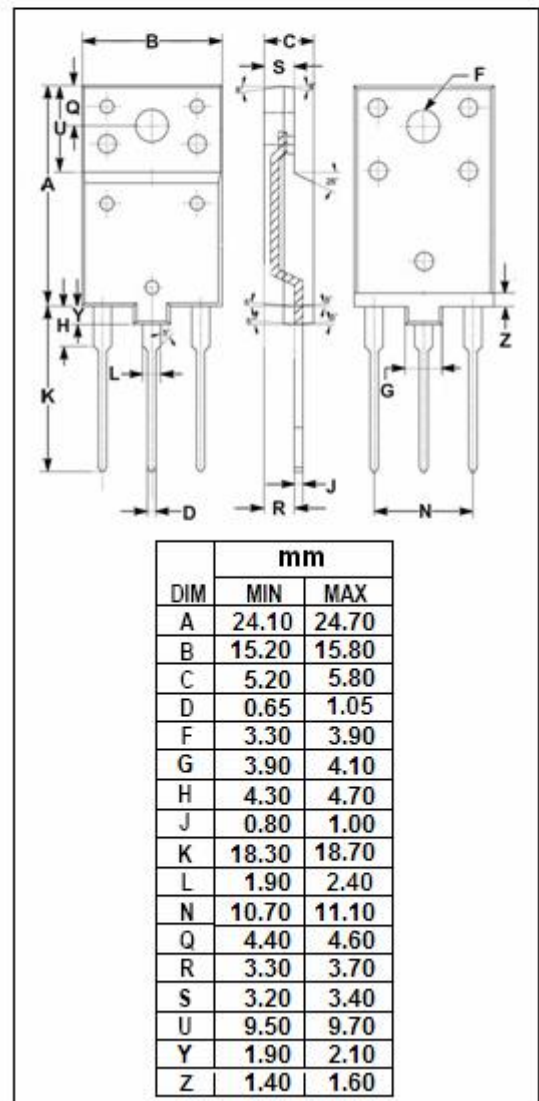
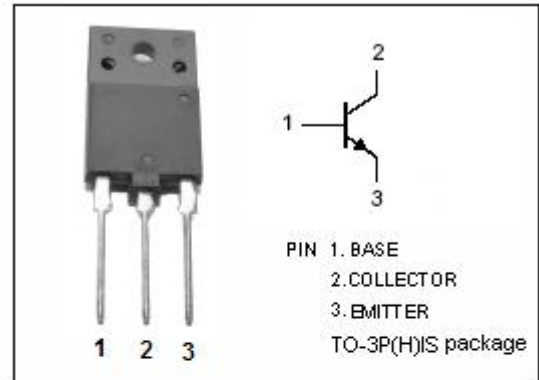
- NPN triple diffused planar silicon transistor
- High Breakdown Voltage
- High Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Very high-definition CRT display horizontal deflection output applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CB0}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	12	A
I_{CP}	Collector Current-Peak	24	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	50	
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS
 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}; I_B=0$	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2\text{A}$			1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=800\text{V}; R_{BE}=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			10	μA
h_{FE-1}	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	10		30	
h_{FE-2}	DC current gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	4		8	
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1.0\text{MHz}$		160		pF

Switching Times

t_{stg}	Storage Time	$I_{CP}=6\text{A}; I_{B1}=1.5\text{A}; I_{B2}=-1.5\text{A}$			4	μs
t_f	Fall Time				0.3	μs

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