

isc Silicon NPN Power Transistor

2SC5803

DESCRIPTION

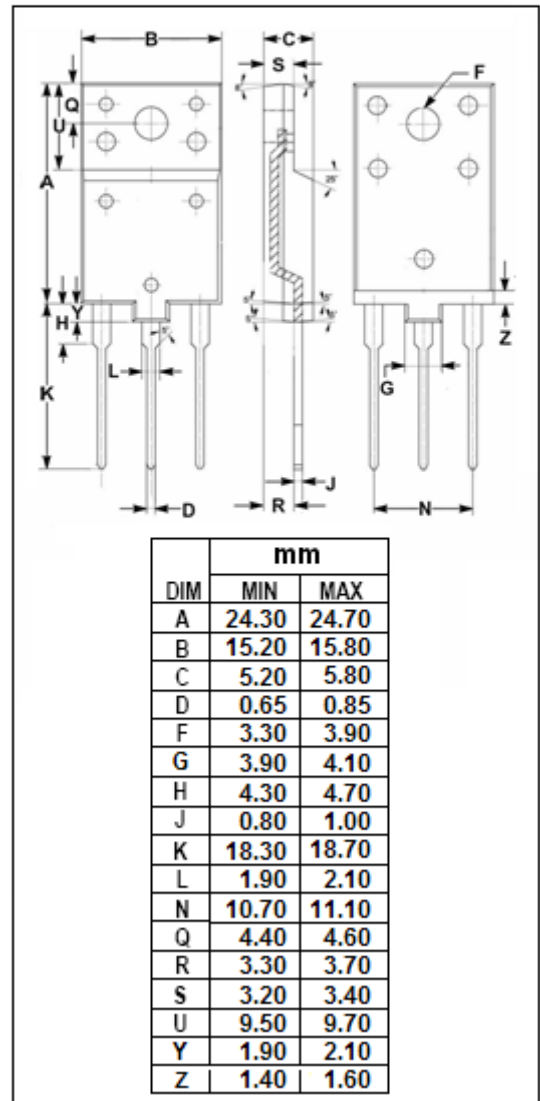
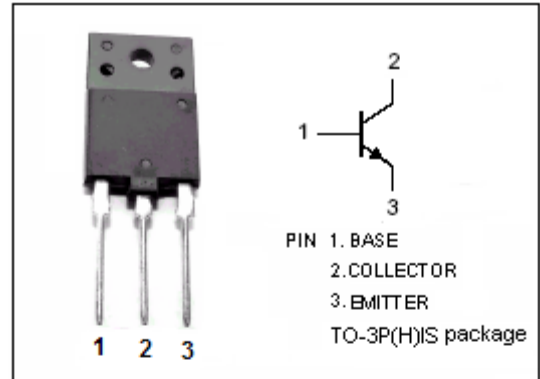
- High Breakdown Voltage-
: $V_{CBO}=1500V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation

APPLICATIONS

- Designed for high voltage color display horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	12	A
I_{CM}	Collector Current- Peak	24	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	70	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Website:

isc Silicon NPN Power Transistor**2SC5803****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 8A; I_B= 2A$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 8A; I_B= 2A$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}= 1400V; V_{BE}= 0$			1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}= 800V; I_E= 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 4V; I_C= 0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C= 1A; V_{CE}= 5V$	15		40	
h_{FE-2}	DC Current Gain	$I_C= 8A; V_{CE}= 5V$	5.5		8.5	

Switching Times

t_{stg}	Storage Time	$I_C= 7A, I_{B1}= 1.4A; I_{B2}= -2.8A;$ $V_{CC}= 200V; R_L= 28.6 \Omega$			4.0	μs
t_f	Fall Time				0.3	μs