

isc Silicon NPN Power Transistor
2SC5689
DESCRIPTION

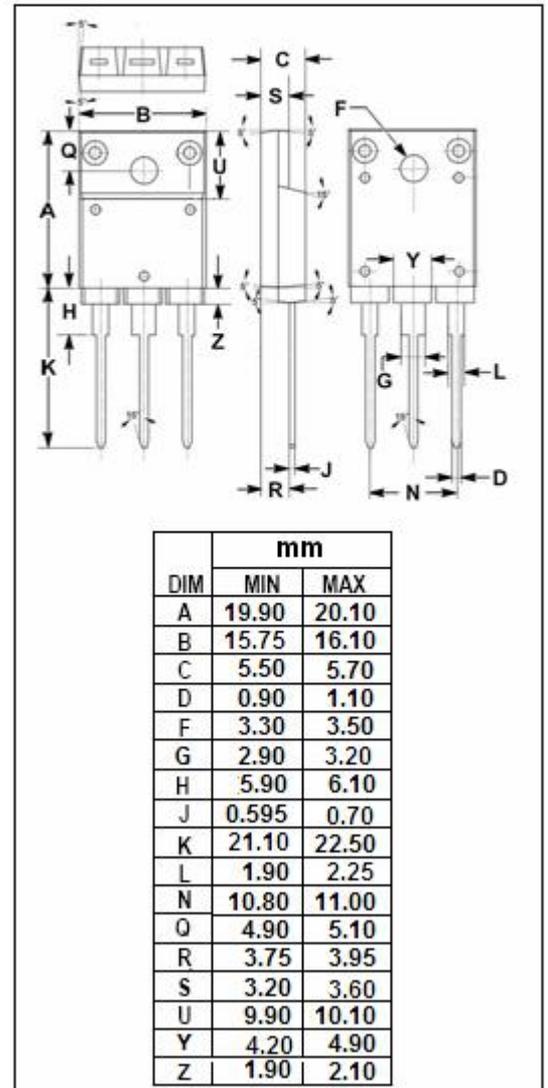
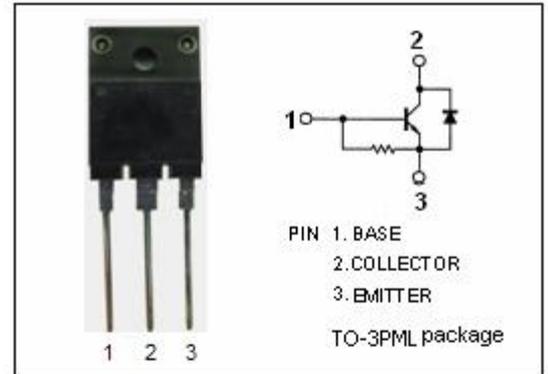
- High Breakdown Voltage-
: $V_{CB0} = 1500V$ (Min)
- High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Color TV horizontal deflection output

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CB0}	Collector-Base Voltage	1500	V
V_{CE0}	Collector-Emitter Voltage	800	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	10	A
I_{CP}	Collector Current-Pulse	25	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	80	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 100mA; I _B = 0	800			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 7.2A; I _B = 1.8A			3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 7.2A; I _B = 1.8A			1.5	V
I _{CB0}	Collector Cutoff Current	V _{CB} = 800V ; I _E = 0			10	μA
I _{CEs}	Collector Cutoff Current	V _{CE} = 1500V ; R _{BE} = 0			1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V ; I _C = 0	40		130	mA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 8A ; V _{CE} = 5V	4		7	
V _{ECF}	C-E Diode Forward Voltage	I _{EC} = 8A			2.0	V

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