

isc Silicon NPN Power Transistor

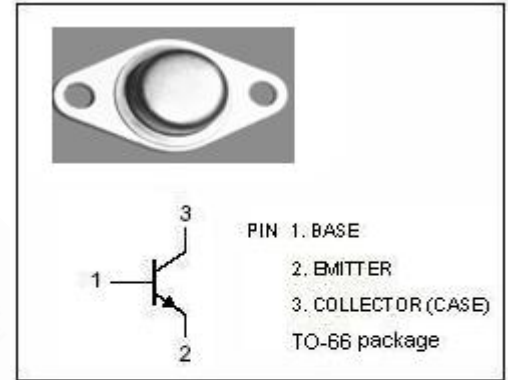
2SD690

DESCRIPTION

- Collector Current: $I_C = 7A$
- Collector-Emitter Breakdown Voltage: $V_{(BR)CEO} = 70V(\text{Min.})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

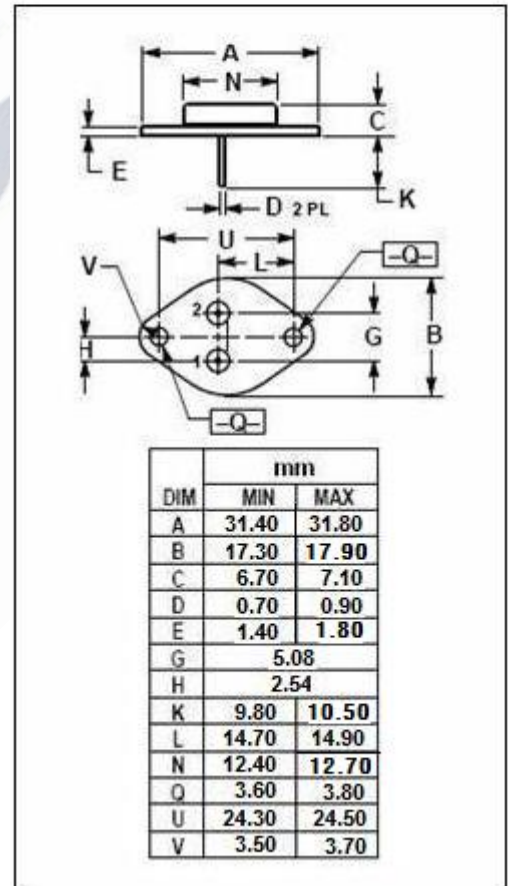
APPLICATIONS

- Designed for TV horizontal deflection applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	70	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	10	A
P_C	Total Power Dissipation @ $T_C=25^\circ C$	40	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor**2SD690****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; R _{BE} = ∞	70			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A ; I _B = 0.5A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A ; I _B = 0.5A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 70V ; I _E = 0			30	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V ; I _C = 0			10	uA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 1V	70		240	
h _{FE-2}	DC Current Gain	I _C = 5A ; V _{CE} = 1V	25			
Switching times						
t _{on}	Turn-on Time	I _C = 5A , I _{B1} = I _{B2} = 0.5A		0.2		μ s
t _{stg}	Storage Time			2.5		μ s
t _f	Fall Time			0.5		μ s