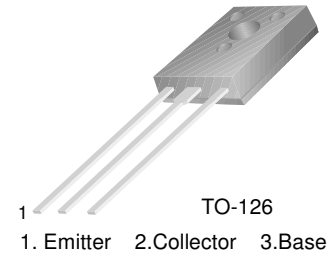


KSC2688

KSC2688

Color TV Chroma Output & Video Output



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1.25	W
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	10	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=0.1\text{mA}, I_E=0$	300			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=5\text{mA}, I_B=0, R_{BE}=\infty$	300			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=0.1\text{mA}, I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=200\text{V}, I_E=0$			100	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=4\text{V}, I_C=0$			100	μA
h_{FE}	* DC Current Gain	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40		250	
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C=50\text{mA}, I_B=5\text{mA}$			1.5	V
f_T	Current Gain Bandwidth Product	$V_{CE}=30\text{V}, I_E=-10\text{mA}$	50	80		MHz
C_{re}	Feed Back Capacitance	$V_{CB}=30\text{V}, I_E=0$ $f=1\text{MHz}$			3	pF

* Pulse Test: $PW\leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$

h_{FE} Classification

Classification	R	O	Y	G
h_{FE}	40 ~ 80	60 ~ 120	100 ~ 200	160 ~ 250

Typical Characteristics

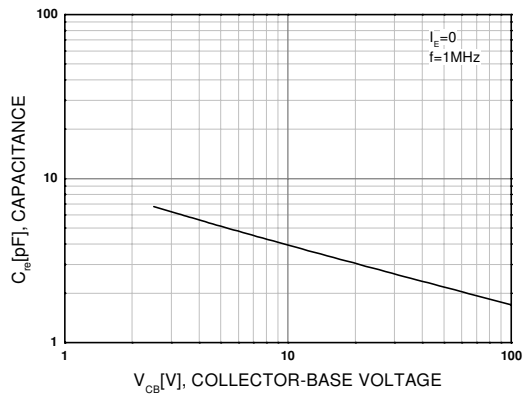


Figure 1. Feedback Capacitance

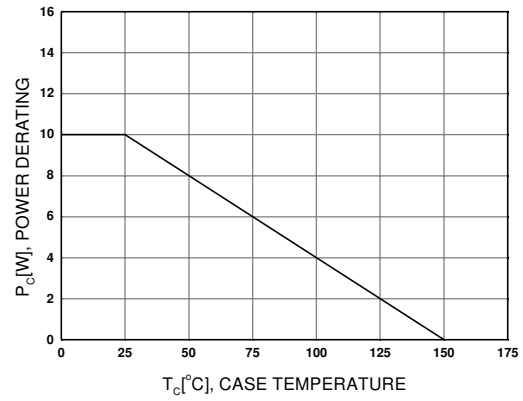


Figure 2. Power Derating

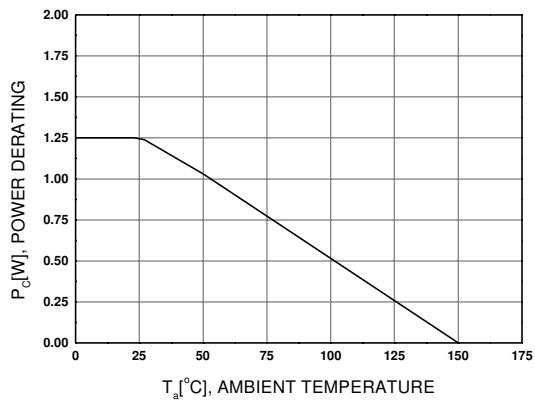


Figure 3. Power Derating

Technical drawing of a 10-pin D-sub connector showing front, side, and top views with dimensions in millimeters.

Front View Dimensions:

- Overall width: 8.00 ± 0.30
- Overall height: 14.20 MAX
- Pin pitch (center-to-center): 2.28 TYP [2.28 ± 0.20]
- Pin diameter: $\phi 3.20 \pm 0.10$
- Pin length (from mounting surface): 13.06 ± 0.30
- Mounting hole diameter: 3.90 ± 0.10
- Mounting hole offset from top edge: 3.90 ± 0.10
- Pin #1 location: Indicated by a dashed line and label #1.

Side View Dimensions:

- Overall height: 16.10 ± 0.20
- Mounting flange height: 11.00 ± 0.20
- Flange width: 3.25 ± 0.20
- Pin length (from flange): 1.75 ± 0.20
- Pin diameter: $\phi 3.20 \pm 0.10$
- Pin offset from flange center: (1.00) (typical) and (0.50) (maximum)
- Pin offset from mounting surface: $0.50^{+0.10}_{-0.05}$

Top View:

- Shows the 10-pin arrangement in a 2x5 grid.

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