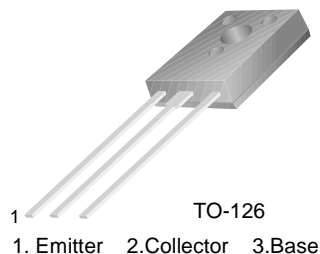


KSC2688

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

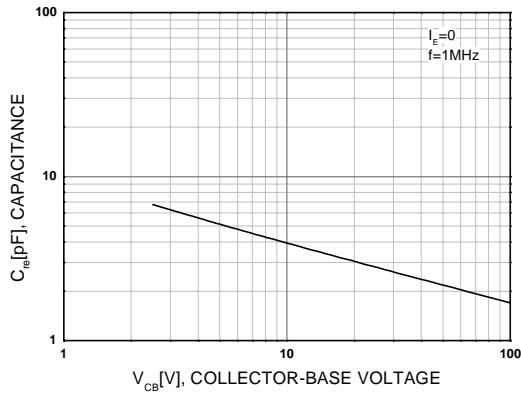


Figure 1. Feedback Capacitance

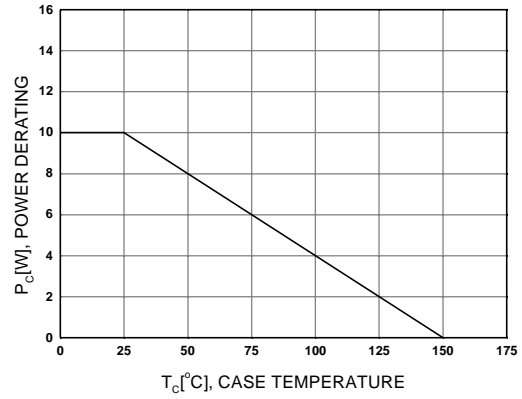


Figure 2. Power Derating

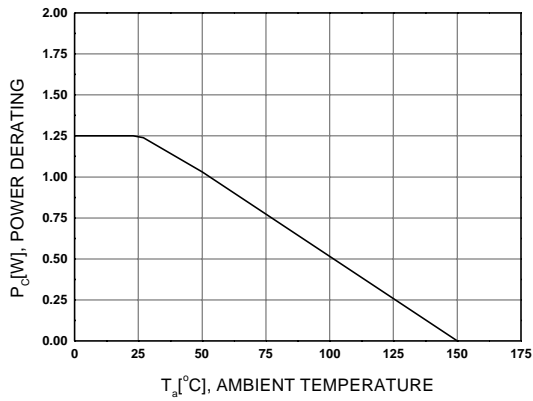


Figure 3. Power Derating

Technical drawing of the 2.28TYP connector showing front, side, and detail views with dimensions.

Front View Dimensions:

- Top mounting hole spacing: 8.00 ± 0.30
- Top mounting hole diameter: $\phi 3.20 \pm 0.10$
- Top mounting hole offset: 3.90 ± 0.10
- Overall width: 14.20 MAX
- Bottom mounting hole spacing: 13.06 ± 0.30
- Bottom mounting hole diameter: $\phi 3.20 \pm 0.10$
- Bottom mounting hole offset: 3.90 ± 0.10
- Bottom mounting hole diameter: $\phi 3.20 \pm 0.10$
- Bottom mounting hole offset: 3.90 ± 0.10
- Bottom mounting hole diameter: $\phi 3.20 \pm 0.10$
- Bottom mounting hole offset: 3.90 ± 0.10

Side View Dimensions:

- Overall height: 16.10 ± 0.20
- Top flange height: 11.00 ± 0.20
- Top flange width: 3.25 ± 0.20
- Top flange offset: (1.00)
- Top flange offset: (0.50)
- Top flange offset: 1.75 ± 0.20
- Top flange offset: $0.50^{+0.10}_{-0.05}$

Detail View Dimensions:

- Detail view shows the internal structure of the connector, including the top flange and the bottom mounting holes.
- Dimensions for the detail view include: 2.28 TYP , $[2.28 \pm 0.20]$, 2.28 TYP , $[2.28 \pm 0.20]$, and 2.28 TYP , $[2.28 \pm 0.20]$.

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