



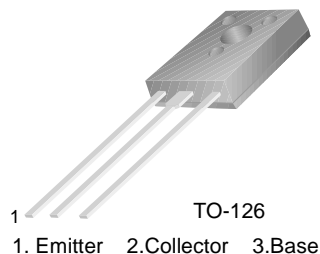
**THE DATASHEET OF
KSC2688YSTU**



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	
$V_{CE}(\text{sat})$	* 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

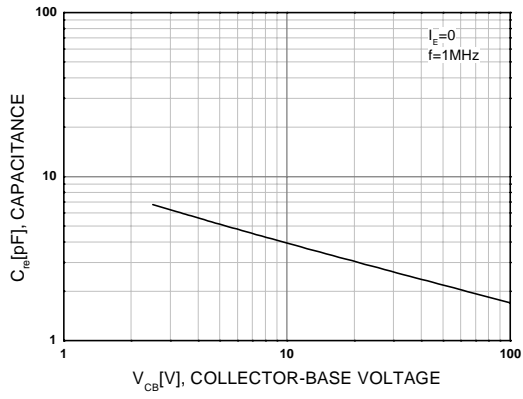


Figure 1. Feedback Capacitance

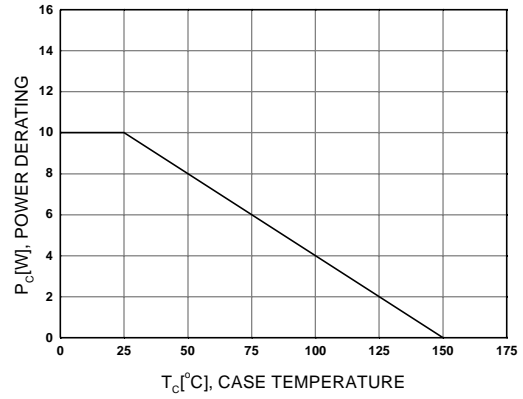


Figure 2. Power Derating

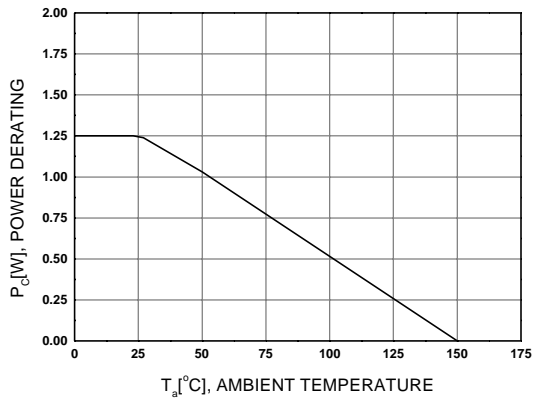


Figure 3. Power Derating

Package Dimensions

KSC2688

TO-126



Dimensions in Millimeters

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