

KSC2258/2258A

High Voltage General Amplifier TV Video Output Amplifier

- High BV_{CEO}



KSC2258/2258A

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		
	: KSC2258	250	V
	: KSC2258A	300	V
V_{CEO}	Collector-Emitter Voltage		
	: KSC2258	250	V
	: KSC2258A	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	100	mA
I_{CP}	Collector Current (Pulse)	150	mA
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	4	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_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 0.1\text{mA}, I_C = 0$	6			V
I_{CER}	Collector Cut-off Current	$V_{CE} = 250\text{V}, R_{BE} = 100\text{K}\Omega$			100	μA
h_{FE1}	DC Current Gain	$V_{CE} = 20\text{V}, I_C = 40\text{mA}$	40			
h_{FE2}		$V_{CE} = 50\text{V}, I_C = 5\text{mA}$	30			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}, I_B = 5\text{mA}$			1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -20\text{V}, I_C = 40\text{mA}$			1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$		100		MHz
C_{ob}	Output Capacitance	$V_{CB} = 50\text{V}, f = 1\text{MHz}$		3	4.5	pF

Typical Characteristics

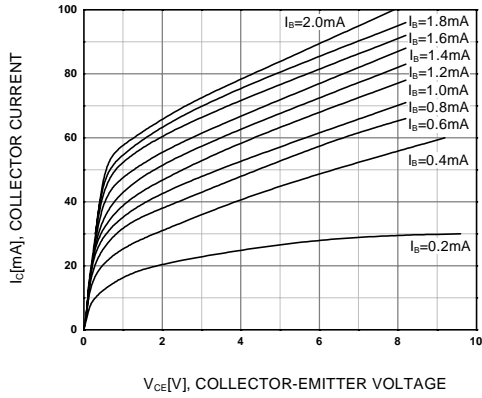


Figure 1. Static Characteristic

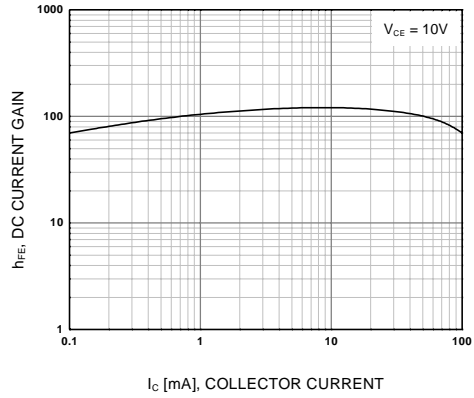


Figure 2. DC current Gain

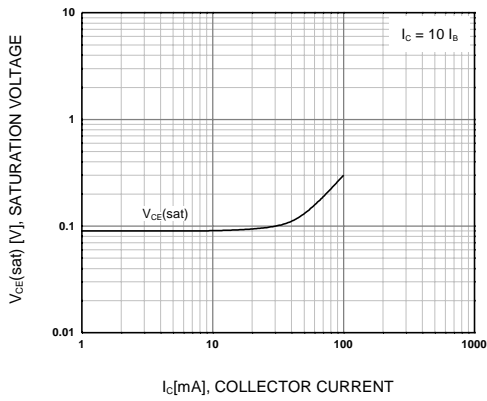


Figure 3. Collector-Emitter Saturation Voltage

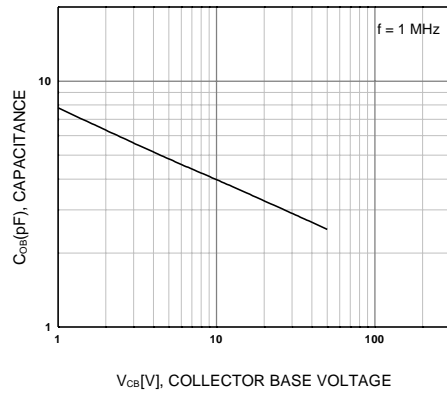


Figure 4. Collector Output Capacitance

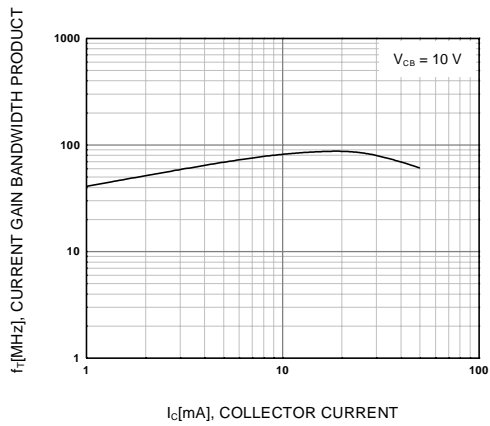


Figure 5. Current Gain Bandwidth Product

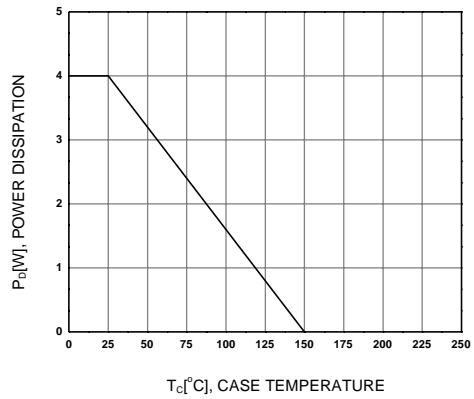


Figure 6. Power Derating

Package Dimensions

KSC2258/2258A

TO-126



Dimensions in Millimeters

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