

## 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	$\mu\text{A}$
$h_{FE1}$	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

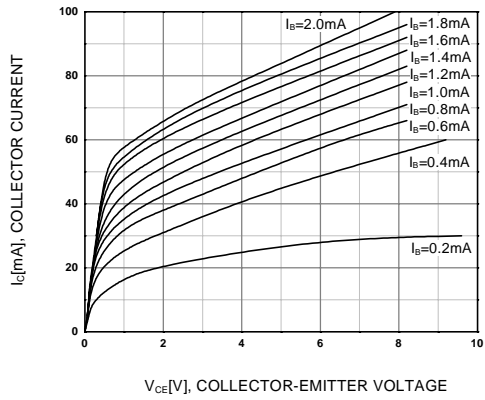


Figure 1. Static Characteristic

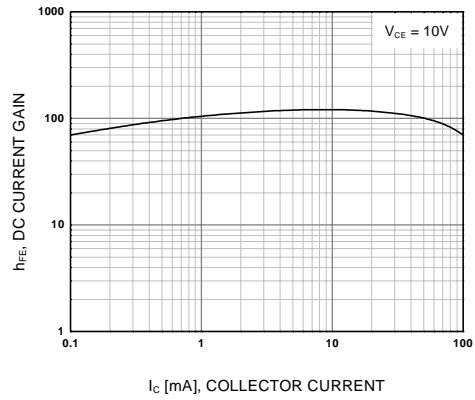


Figure 2. DC current Gain

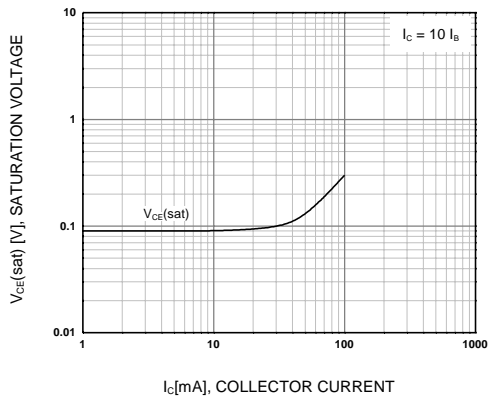


Figure 3. Collector-Emitter Saturation Voltage

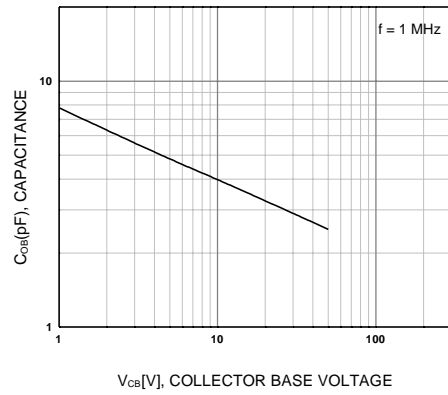


Figure 4. Collector Output Capacitance

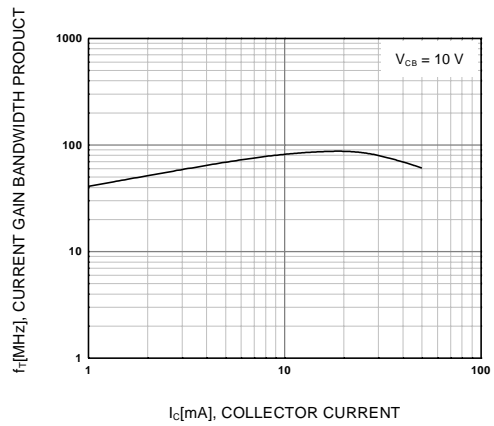


Figure 5. Current Gain Bandwidth Product

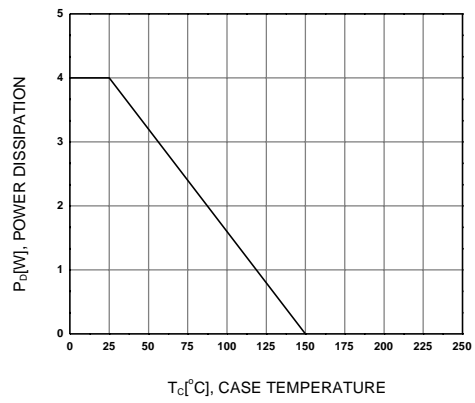


Figure 6. Power Derating

# Package Dimensions

## TO-126

KSC2258/2258A



Dimensions in Millimeters

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