

KSD568/569

Low Frequency Power Amplifier

- Low Speed Switching Industrial UseComplement to KSB707/708



1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter		Value	Units
V _{CBO}	Collector-Base Voltage		100	V
V _{CEO}	Collector-Emitter Voltage	: KSD568	60	V
		: KSD569	80	V
V_{EBO}	Emitter-Base Voltage		7	V
I _C	Collector Current (DC)		7	Α
I _{CP}	*Collector Current (Pulse)		15	Α
I _B	Base Current		3.5	Α
P _C	Collector Dissipation (T _C =25°C)		40	W
P _C	Collector Dissipation (T _a =25°C)		1.5	W
T _J	Junction Temperature		150	°C
T _{STG}	Storage Temperature		- 55 ~ 150	°C

^{*} PW≤300μs, Duty Cycle≤10%

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
I _{CBO}	Collector Cut-off Current	$V_{CB} = 80V, I_{E} = 0$		10	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = 5V, I_{C} = 0$		10	μΑ
h _{FE1}	*DC Current Gain	$V_{CE} = 1V$, $I_C = 3A$	40	200	
h _{FE2}		$V_{CE} = 1V, I_{C} = 5A$	20		
V _{CE} (sat)	*Collector-Emitter Saturation Voltage	$I_C = 5A, I_B = 0.5A$		0.5	V
V _{BE} (sat)	*Base-Emitter Saturation Voltage	$I_C = 5A, I_B = 0.5A$		1.5	V

^{*} Pulse Test: PW≤350μs, Duty Cycle≤2%

h_{FE} Classification

Classification	R	0	Υ
h _{FE1}	40 ~ 80	60 ~ 120	100 ~ 200

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Typical Characteristics

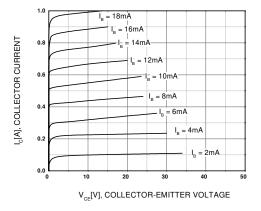


Figure 1. Static Characteristic

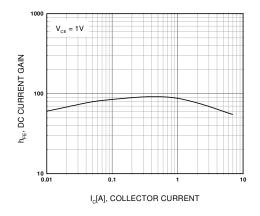


Figure 2. DC current Gain

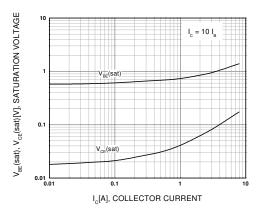


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

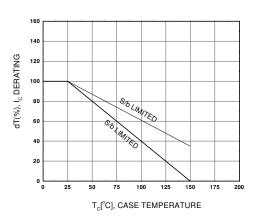


Figure 4. Derating Curve Of Safe Operating Areas

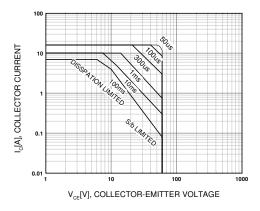


Figure 5. Forward Bias Safe Operating Area

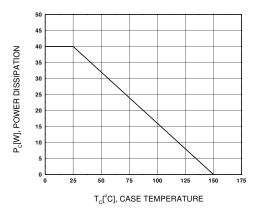
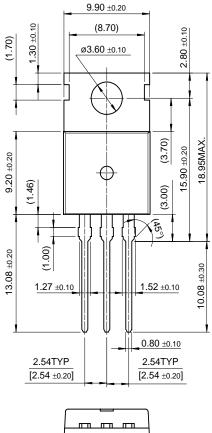


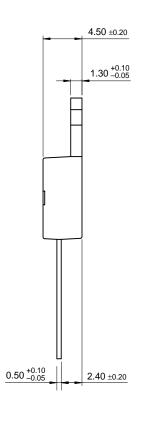
Figure 6. Power Derating

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Package Demensions

TO-220





10.00 ±0.20

Dimensions in Millimeters

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