

Silicon Power Transistors

KSE340和KSE350适用于通用放大及开关应用。

KSE340 and KSE350 for use in general purpose amplifier and switching applications.

产品特性 Features

- 高集电极电压 High collector voltage
- 优秀的频率特性 Excellent frequency characteristics
- 线性特性强 Excellent Gain Linearity
- 环保产品 These Devices are RoHS Compliant

绝对最大额定值 MAXIMUM RATINGS ($T_c=25^{\circ}\text{C}$ unless otherwise noted)

项 目 Rating	符 号 Symbol	数 值 Value	单 位 Unit
集电极-发射极直流电压 Collector-Emitter Voltage	V_{CE0}	300	Vdc
集电极-基极直流电压 Collector-Base Voltage	V_{CB0}	300	Vdc
发射极-基极直流电压 Emitter-Base Voltage	V_{EB0}	5	Vdc
最大集电极直流电流 Collector Current - Continuous	I_C	0.5	Adc
最大集电极耗散功率($T_c=25^{\circ}\text{C}$) Total Power Dissipation @ $T_c = 25^{\circ}\text{C}$ Derate above 25°C	P_D	20	W
使用及贮存温度 Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to $+150$	$^{\circ}\text{C}$

超过最大额定值的应用可能会损坏器件。
长时间在超过推荐工作条件下的应用可能会影响器件的可靠性。

Stresses exceeding Maximum Ratings may damage the device. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1、测试脉冲宽度300 μs ，占空比 $\leq 2\%$

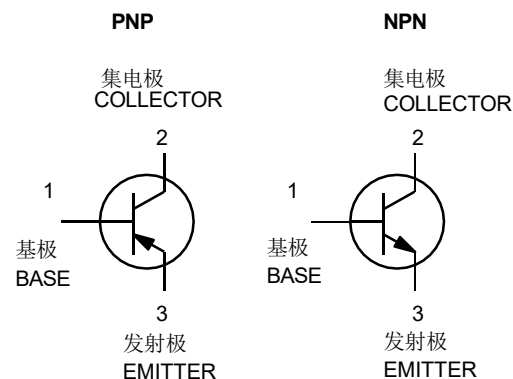
1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2\%$

热特性

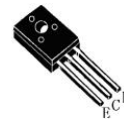
THERMAL CHARACTERISTICS

项 目 Rating	符 号 Symbol	数 值 Value	单 位 Unit
结到管壳的热阻 Thermal Resistance, Junction-to-Case	$R_{th(j-c)}$	6.25	$^{\circ}\text{C/W}$

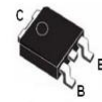
300V 0.5A 20W互补硅功率晶体管 0.5 AMPERE COMPLEMENTARY SILICON POWER TRANSISTORS 300 VOLTS, 20 WATTS



TO-126



TO-126F



DPAK

电特性 ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

特 性 Characteristic	符 号 Symbol	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
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断态特性 OFF CHARACTERISTICS

集电极-发射极(直流)电压 Collector-Emitter Breakdown Voltage ($I_C = 10\text{ mA}$, $I_B = 0$)	V_{CEO}	300	—	—	Vdc
集电极-基极截止电流 Collector Base Current ($V_{CB} = 300\text{ Vdc}$, $I_B = 0$)	I_{CBO}	—	—	0.1	mA
发射极-基极截止电流 Emitter Cutoff Current ($V_{CE} = 5\text{ Vdc}$, $I_C = 0$)	I_{EBO}	—	—	0.1	mA

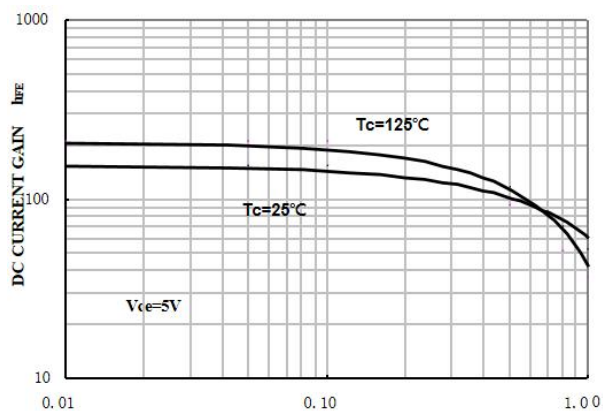
通态特性 ON CHARACTERISTICS

直流电流放大倍数 DC Current Gain ($I_C = 0.05\text{ A}$, $V_{CE} = 10\text{ Vdc}$)	h_{FE}	80	—	160	
基极-发射极饱和压降 Base-Emitter Saturation Voltage ($I_C = 0.5\text{ A}$, $V_{CE} = 5\text{ V}$)	$V_{BE(ON)}$	—	—	1.0	Vdc
集电极-发射极饱和压降 Collector-Emitter Saturation Voltage ($I_C = 0.1\text{ A}$, $I_B = 0.01\text{ A}$)	$V_{CE(sat)}$	—	—	1.0	Vdc

动态特性 DYNAMIC CHARACTERISTICS

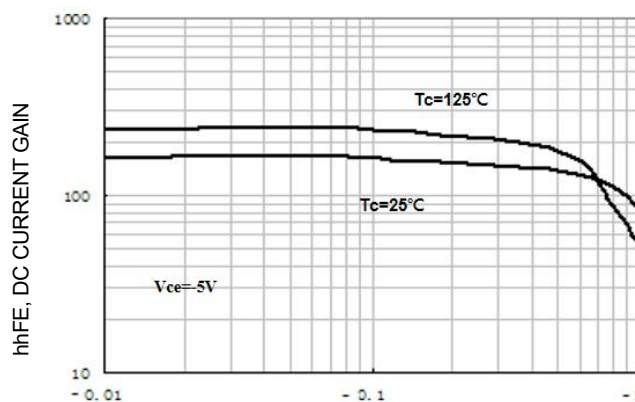
特征频率 Current Gain Bandwidth Product ($I_E = 2\text{ A}$, $V_{CE} = 12\text{ Vdc}$)	KSE340 KSE350	f_T	—	100 70	MHz
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NPN KSE340



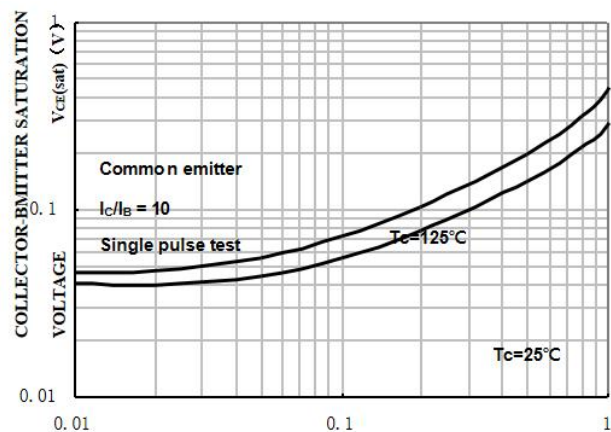
COLLECTOR CURRENT I_C [A]
Figure 1. DC Current Gain

PNP KSE350



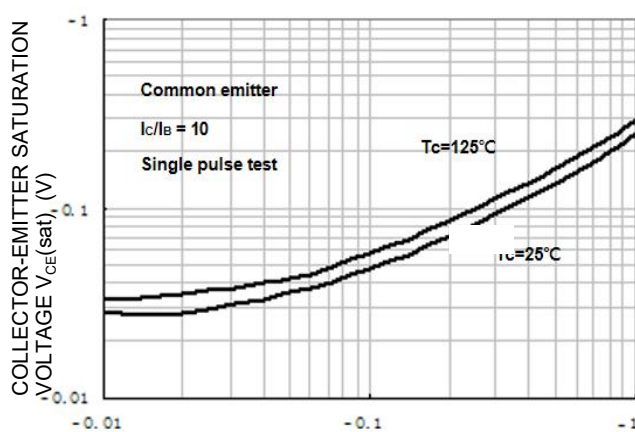
COLLECTOR CURRENT I_C [A]
Figure 2. DC Current Gain

NPN KSE340



COLLECTOR CURRENT I_C [A]
Figure 3. Typical Saturation Voltages

PNP KSE350



COLLECTOR CURRENT I_C [A]
Figure 4. Typical Saturation Voltages

NPN KSE340

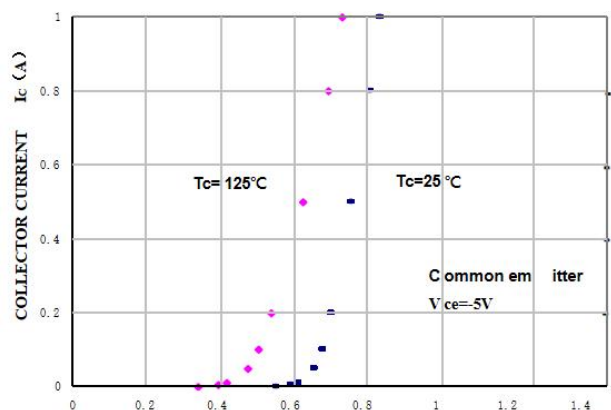


Figure 5. IC-VBE

PNP KSE350

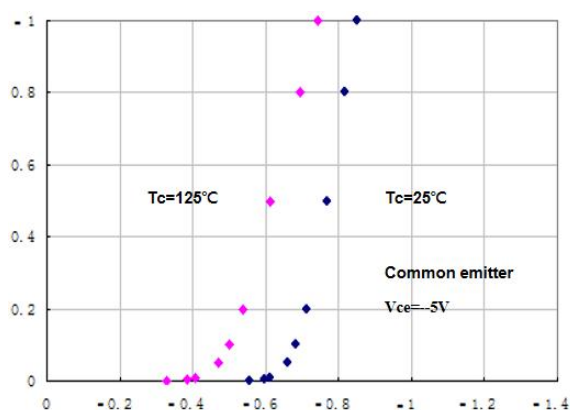
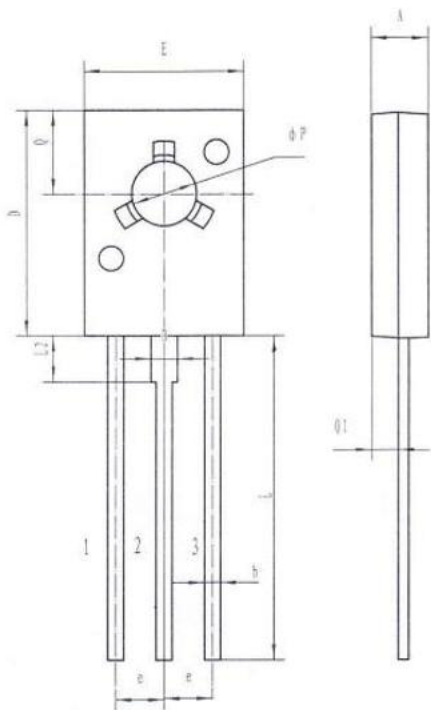


Figure 6. IC-VBE

TO-126

单位 Unit : mm



符号 Symbol	尺寸 (mm) Size (mm)
A	2.50-2.90
B	1.22-1.47
b	0.60-0.90
c	0.30-0.70
D	10.50-11.10
E	7.10-8.10
e	2.19-2.39
L	15.3-15.7
L2	2.10-2.30
Q	3.80-4.20
Q1	1.07-1.47
P	3.00-3.20