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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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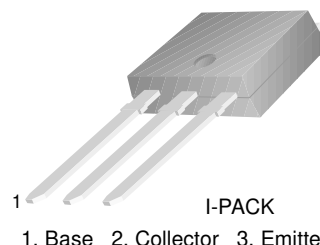


KSC3074

KSC3074

High Power Switching

- Complement to KSA1244



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	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	5	A
I_B	Base Current	1	A
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1	W
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	20	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_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}, I_B = 0$	50			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 50\text{V}, I_E = 0$			1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 1\text{V}, I_C = 1\text{A}$ $V_{CE} = 1\text{V}, I_C = 3\text{A}$	70 30		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 3\text{A}, I_B = 0.15\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 3\text{A}, I_B = 0.15\text{A}$		0.9	1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 4\text{V}, I_C = 1\text{A}$		120		MHz
C_{ob}	Output Capacitance	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		80		pF
t_{ON}	Turn ON Time	$V_{CC} = 30\text{V}, I_C = 3\text{A}$		0.1		μs
t_{STG}	Storage Time	$I_{B1} = - I_{B2} = 0.15\text{A}$		1		μs
t_F	Fall Time	$R_L = 10\Omega$		0.1		μs

h_{FE} Classification

Classification	O	Y
h_{FE1}	70 ~ 140	120 ~ 240

Typical Characteristics

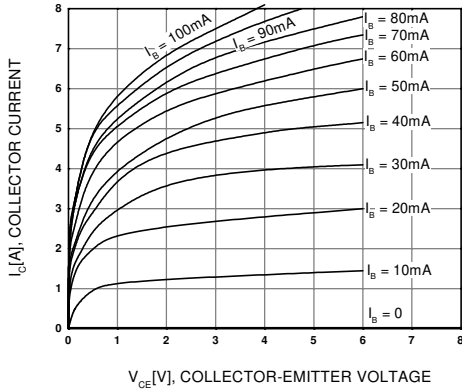


Figure 1. Static Characteristic

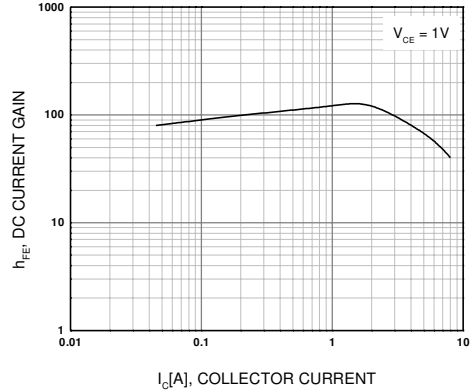


Figure 2. DC current Gain

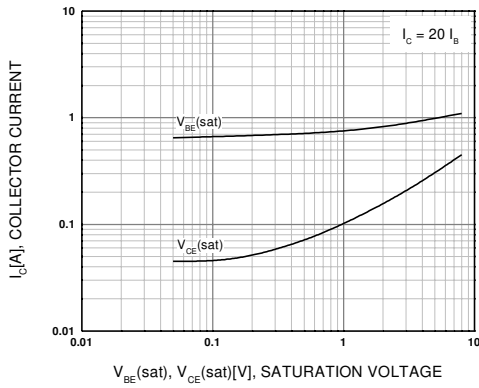


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

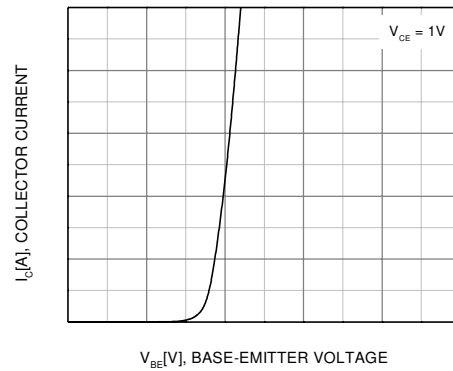


Figure 4. Base-Emitter on Voltage

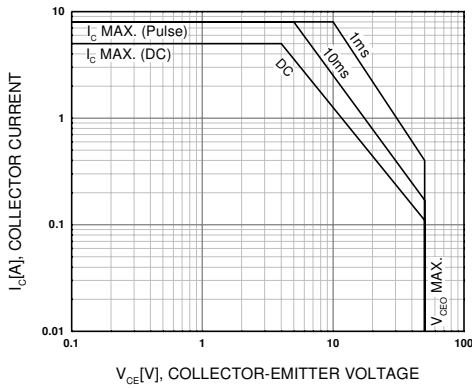


Figure 5. Safe Operating Area

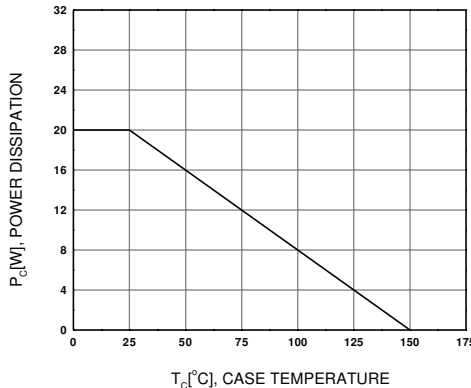


Figure 6. Power Derating

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