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September 2011

KSC2073 NPN Epitaxial Silicon Transistor

Features

- TV Vertical Deflection Output
- Complement to KSA940
- Collector-Base Voltage : V_{CBO} = 150V



1.Base 2.Collector 3.Emitter

Absolute Maximum Ratings $T_A = 25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	150	V
V _{CEO}	Collector-Emitter Voltage	150	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	1.5	Α
P _C	Collector Dissipation (T _C = 25°C)	25	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 to 150	°C

Electrical Characteristics $T_A = 25$ °C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	$I_C = 500 \mu A, I_E = 0$	150			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10 \text{mA}, I_B = 0$	150			V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_E = 500 \mu A, I_C = 0$	5			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = 120V, I_{E} = 0$			10	μΑ
h _{FE}	DC Current Gain	$V_{CE} = 10V, I_{C} = 0.5A$	40	75	140	
V _{CE} (sat)	Collector-Emitter Saturation Voltage	$I_C = 500 \text{mA}, I_B = 50 \text{mA}$			1	V
f _T	Current Gain Bandwidth Product	$V_{CE} = 10V, I_{C} = 0.5A$		4		MHz
C _{ob}	Output Capacitance	$V_{CB} = 10V, I_{E} = 0,$ f = 1MHz		50		pF

h_{FE} Classification

Classification	H1	H2
h _{FE}	40 ~ 80	60 ~ 125

Typical Performance Characteristics

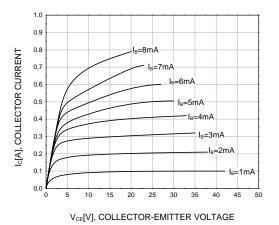


Figure 1. Static Characteristic

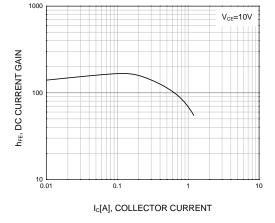


Figure 2. DC current Gain

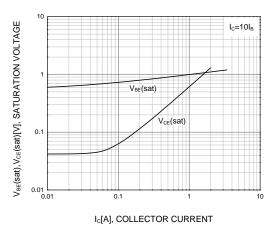


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

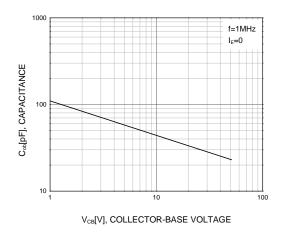


Figure 4. Collector-Emitter On Voltage

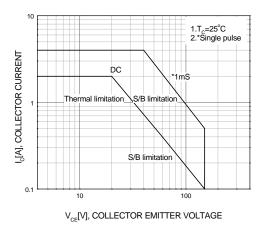


Figure 5. Safe Operating Area

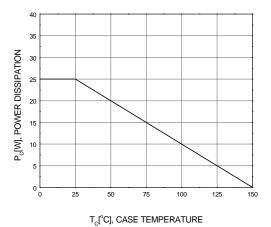
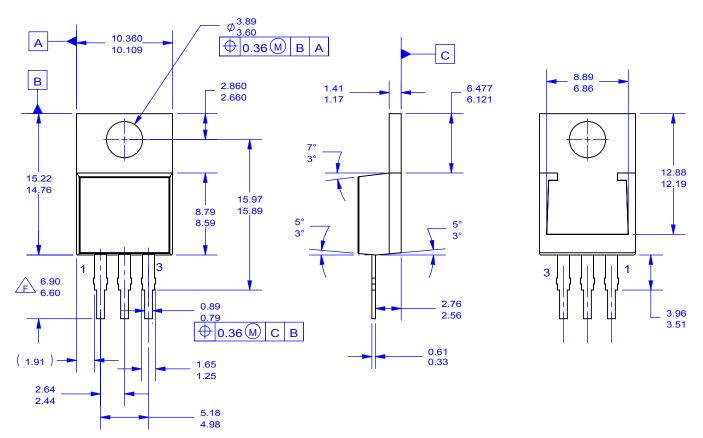
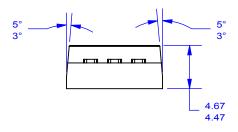


Figure 6. Power Derating





NOTES:

- A. PACKAGE REFERENCE: JEDEC TO220 VARIATION AB
- B. ALL DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
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