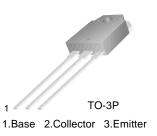
FAIRCHILD

SEMICONDUCTOR®

KSC5029

High Voltage and High Reliabilty

- High Speed Switching
- Wide SOA



NPN Silicon Transistor

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

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	1100	V
V _{CEO}	Collector-Emitter Voltage	800	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current (DC)	4.5	А
I _{CP}	Collector Current (Pulse)	15	A
I _B	Base Current	2	А
P _C	Collector Dissipation (T _C =25°C)	90	W
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

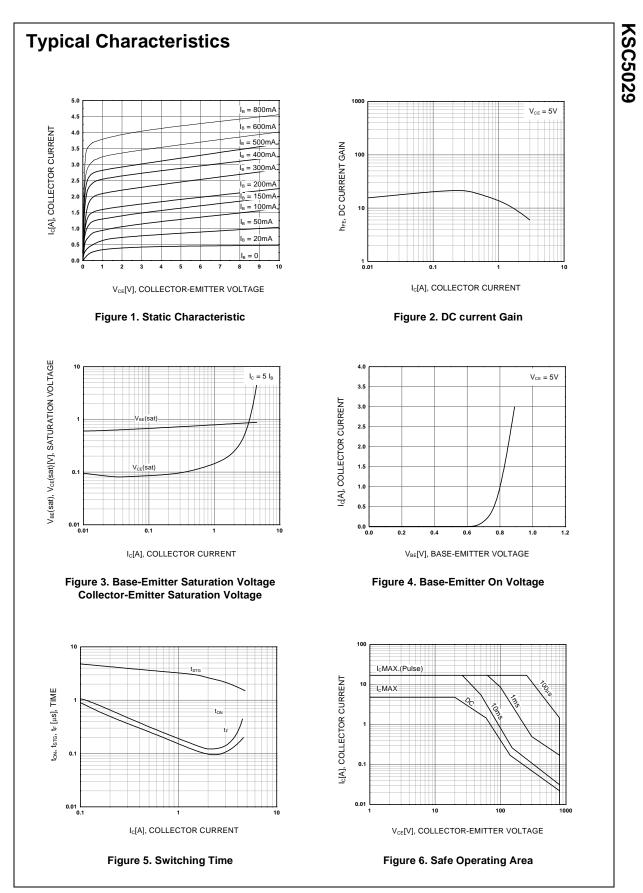
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	$I_{\rm C} = 1 {\rm mA}, I_{\rm E} = 0$	1100			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	$I_{\rm C} = 5 {\rm mA}, I_{\rm B} = 0$	800			V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_{\rm E} = 1 {\rm mA}, I_{\rm C} = 0$	7			V
V _{CEX} (sus)	Collector-Emitter Sustaining Voltage	$I_{C} = 2A, I_{B1} = -I_{B2} = 0.4A$ L = 2mH, Clamped	800			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = 800V, I_E = 0$			10	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = 5V, I_{C} = 0$			10	μΑ
h _{FE1}	DC Current Gain	$V_{CE} = 5V, I_{C} = 0.3A$	10		40	
h _{FE2}		$V_{CE} = 5V, I_{C} = 1.5A$	8			
V _{CE} (Sat)	Collector-Emitter Saturation Voltage	$I_{\rm C} = 2A, I_{\rm B} = 0.4A$			2	V
V _{BE} (Sat)	Base-Emitter Saturation Voltage	$I_{\rm C} = 2A, I_{\rm B} = 0.4A$			1.5	V
C _{ob}	Output Capacitance	$V_{CB} = 10V, IE = 0, f = 1MHz$		90		pF
f _T	Current Gain Bandwidth Product	$V_{CE} = 10V, I_{C} = 0.3A$		15		MHz
t _{ON}	Turn ON Time	V _{CC} = 400V			0.5	μs
t _{STG}	Storage Time	$I_{C} = 51_{B1} = -2.5I_{B2} = 3A$			3	μs
t _F	Fall Time	$R_L = 133\Omega$			0.3	μs

h_{FE} Classificntion

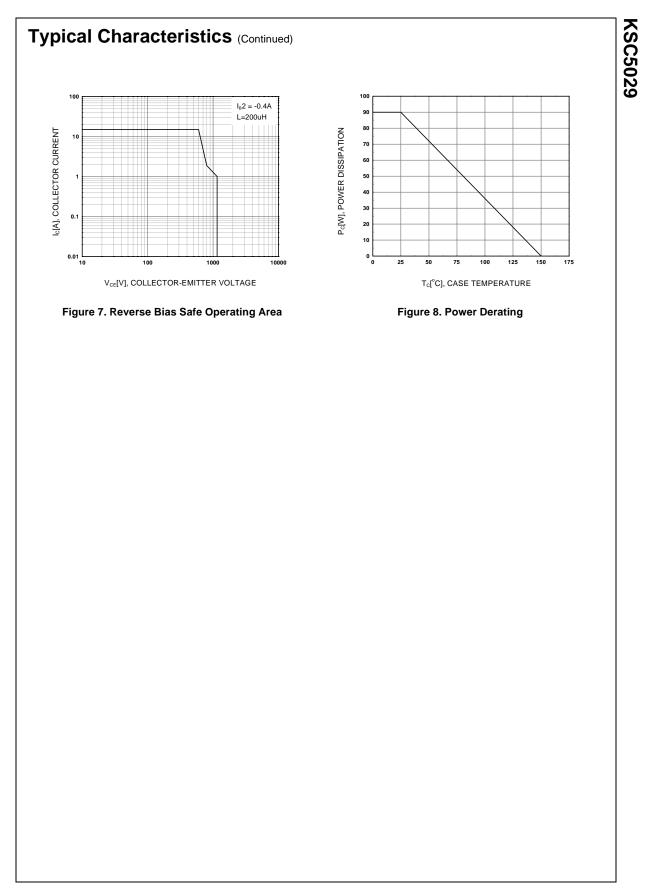
Classification	Ν	R	0
h _{FE1}	10 ~ 20	15 ~ 30	20 ~ 40

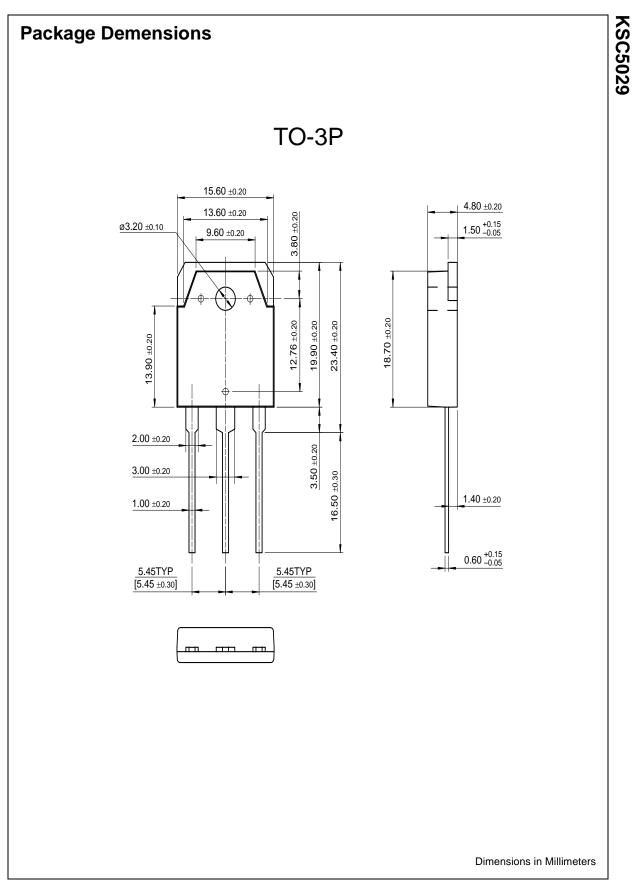
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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