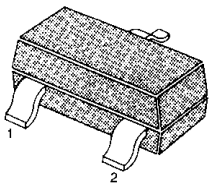
BCW71 NPN EPITAXIAL SILICON TRANSISTOR

GENERAL PURPOSE TRANSISTOR

SOT-23



1. Base 2. Emitter 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

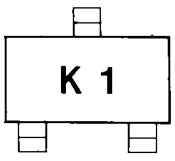
Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Collector Dissipation	P_C	350	mW
Storage Temperature	T_{STG}	150	°C

• Refer to KST2222 for graphs

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=10μA, I_E=0	50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=2mA, I_B=0	45			V
Collector-Emitter Breakdown Voltage	BV_{CES}	I_C=2mA, V_{EB}=0	45			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA, I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=20V, I_E=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=2mA	110		220	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=10mA, I_B=0.5mA			0.25	V
		I_C=50mA, I_B=2.5mA		0.21		V
Base-Emitter Saturation Voltage	V_{BE} (sat)	I_C=50mA, I_B=2.5mA		0.85		V
Base-Emitter On Voltage	V_{BE} (on)	I_C=2mA, V_{CE}=5V	0.6		0.75	V
Current Gain Bandwidth Product	f_T	V_{CE}=5V, I_C=10mA f=35MHz		300		MHz
Output Capacitance	C_{OB}	V_{CB}=10V, I_E=0 f=1MHz			4	pF
Noise Figures	NF	V_{CE}=5V, I_C=2.0mA R_G=2KΩ, f=1KHz			10	dB

Marking



Rev. B

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