

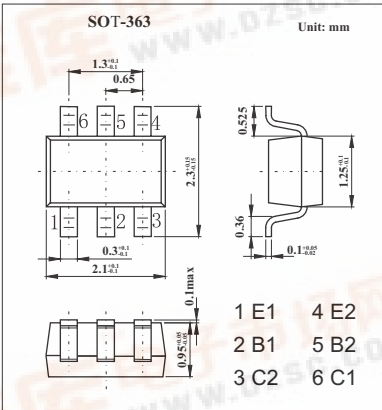
SMD Type

Transistors

NPN Multi-Chip General Purpose Amplifier
KC847S(BC847S)

■ Features

- High current gain
- Low collector-emitter saturation voltage



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	50	V
Collector-Emitter Voltage	V _{CE0}	45	V
Emitter-Base Voltage	V _{EB0}	6.0	V
Collector Current	I _c	100	mA
Total Device Dissipation	P _D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	415	°C/W
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V _{CB0}	I _c = 10 μA, I _E = 0	50			V
Collector-Emitter Breakdown Voltage	V _{CE0}	I _c = 10 mA, I _B = 0	45			V
Emitter-Base Breakdown Voltage	V _{EB0}	I _E = 10 μA, I _c = 0	6.0			V
Collector-Cutoff Current	I _{CBO}	V _{CB} = 30 V, I _E = 0			15	nA
		V _{CB} = 30 V, I _E = 0, T _A = 150°C			5.0	μA
DC Current Gain	h _{FE}	I _c = 2.0 mA, V _{CE} = 5.0 V	110		630	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c = 10 mA, I _B = 0.5 mA			0.25	V
		I _c = 100 mA, I _B = 5.0 mA			0.65	V
Base-Emitter ON Voltage	V _{BE(on)}	I _c = 2.0 mA, V _{CE} = 5.0 V	0.58		0.7	V
		I _c = 10 mA, V _{CE} = 5.0 V			0.77	V
Output Capacitance	C _{ob}	V _{CB} = 10 V, f = 1.0 MHz		2.0		pF
Transistion frequency	f _T	I _c = 20 mA, V _{CE} = 5.0, f = 100 mHz		200		MHz

■ Marking

Marking	1C
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