2SC4727



20V/8A Switching Applications

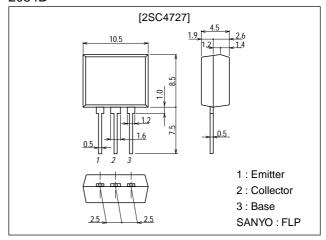
Features

- · Adoption of MBIT process.
- · Low saturation voltage.
- · Fast switching speed.
- · Large current capacity.
- · It is possible to make appliances more compact because its height on board is 9.5mm.
- · Effective in automatic inserting and counting stocked amount because of being provided for radial taping.

Package Dimensions

unit:mm

2084B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		30	V
Collector-to-Emitter Voltage	VCEO		20	V
Emitter-to-Base Voltage	V _{EBO}		5	V
Collector Current	lC		8	Α
Collector Current (Pulse)	I _{CP}		12	Α
Base Current	I _B		1.5	Α
Collector Dissipation	PC		1.5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

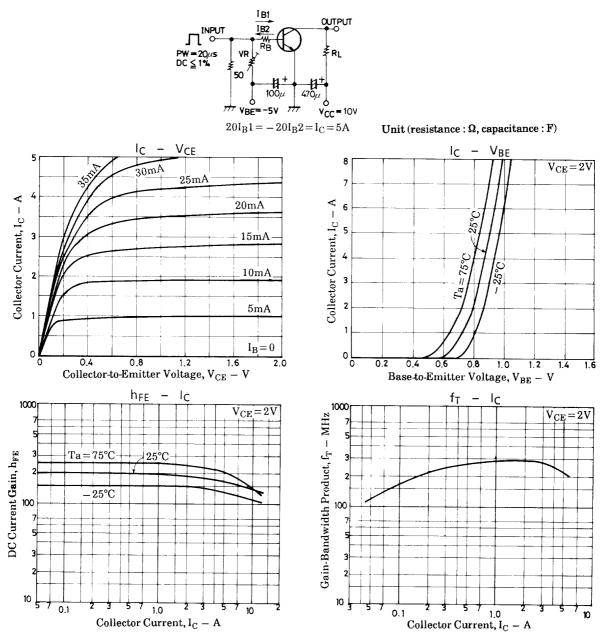
Electrical Characteristics at Ta = 25°C

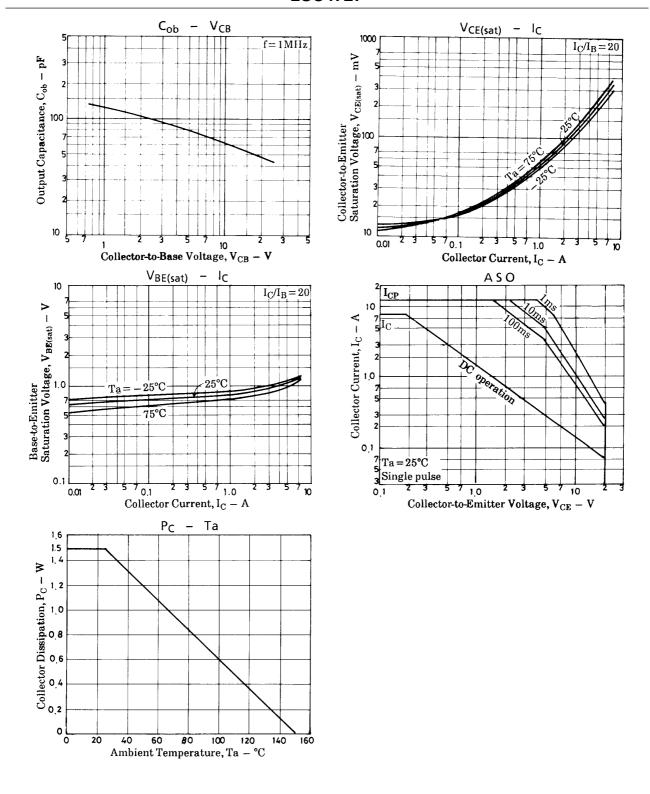
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =20V, I _E =0			1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			1	μΑ
DC Current Gain	h _{FE} 1	V _{CE} =2V, I _C =500mA	100*		400*	
	h _{FE} 2	V _{CE} =2V, I _C =6A	70			
Gain-Bandwidth Product	fΤ	V _{CE} =2V, I _C =500mA		250		MHz
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =5A, I _B =250mA		220	400	mV
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =5A, I _B =250mA		1	1.3	V

- * : The 2SC4727 is classified by 500mA h_{FE} as follows : $\fbox{100\ R}$ $\ 200\ \fbox{140}$ S $\ 280\ \fbox{200}$ T $\ 400$
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		60		pF
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =10μA, I _E =0	30			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =1mA, R _{BE} =∞	20			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =10μA, I _C =0	5			V
Turn-ON Time	ton	See specified test circuit.		30		ns
Storage Time	t _{stg}	See specified test circuit.		250		ns
Fall Time	t _f	See specified test circuit.		15		ns

Switching Time Test Circuit





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