

2SD1940

NPN Epitaxial Planar Silicon Transistor
 85V/6A, AF 25 to 30W
 Output Applications

Features

- . Micaless package facilitating mounting
- . Wide ASO

Absolute Maximum Ratings at Ta=25°C

			unit
Collector-to-Base Voltage	V _{CB0}	100	V
Collector-to-Emitter Voltage	V _{ECO}	85	V
Emitter-to-Base Voltage	V _{EBO}	6	V
Collector Current	I _C	6	A
Collector Current (Pulse)	I _{CP}	10	A
Collector Dissipation	P _C	25	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

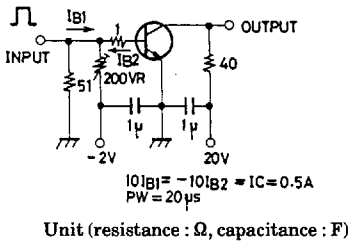
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =40V, I _E =0			0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	mA
DC Current Gain	h _{FE} (1)	V _{CE} =5V, I _C =1A	60*		320*	
	h _{FE} (2)	V _{CE} =5V, I _C =3A	20			
Gain-Bandwidth Product	f _T	V _{CE} =5V, I _C =1A		15		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C =4A, I _B =0.4A			2.0	V
Base to Emitter Voltage	V _{BE}	V _{CE} =5V, I _C =1A			1.5	V
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		110		pF
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =5mA, I _E =0	100			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =5mA, R _{BE} =∞	85			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E =5mA, I _C =0	6			V
Turn-on Time	t _{on}	See specified Test Circuit.		0.28		μs
Fall Time	t _f	"		0.50		μs
Storage Time	t _{stg}	"		3.60		μs

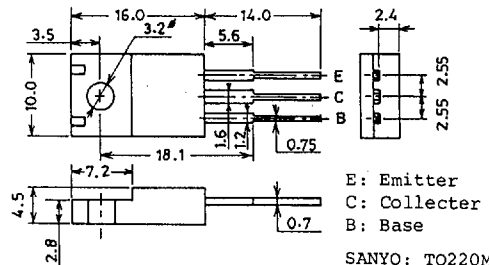
*: The 2SD1940 is classified by 1A h_{FE} as follows:

60 D 120	100 E 200	160 F 320
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Switching Time Test Circuit



Package Dimensions 2041 (unit:mm)



E: Emitter
 C: Collector
 B: Base
 SANYO: TO220ML

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