



Silicon NPN Triple Diffused Planar Transistor

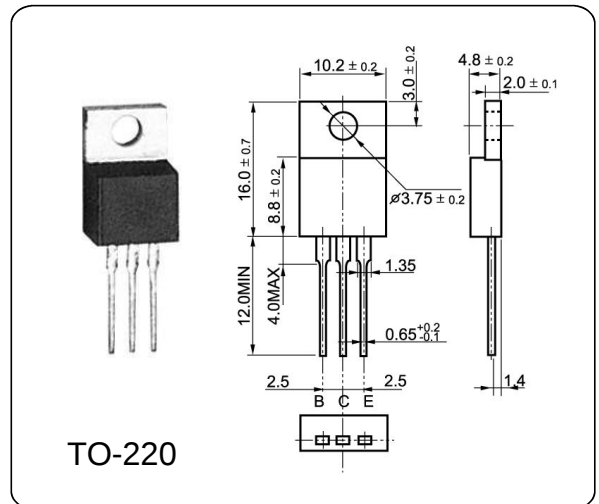
2SC3834

DESCRIPTION

It is intended for use in power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	8.0	V
Collector Current	I_C	7.0	A
Base Current	I_B	3.0	A
Total Dissipation at	P_{tot}	50	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB}=200V, I_E=0$			0.1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=8V, I_C=0$			0.1	mA
Collector-Emitter Sustaining Voltage	V_{CEO}	$I_C=50mA, I_B=0$	120			V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4V, I_C=0.3A$	100			
	$h_{FE(2)}$	$V_{CE}=4V, I_C=3.0A$	70		220	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3.0A, I_B=300mA$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3.0A, I_B=300mA$			1.2	V
Current Gain Bandwidth Product	f_T	$V_{CE}=12V, I_C=500mA$	10			MHz