

2SC3465



2017

NPN Triple Diffused Planar Silicon Transistor

T-33-15

Switching Regulator Applications

©2486

Features

- . High breakdown voltage and high reliability.
- . Fast switching speed (t_f : 0.1 μ s typ.)
- . Wide ASO.
- . Adoption of MBIT process.

Absolute Maximum Ratings at Ta=25°C

		unit
Collector to Base Voltage	V_{CBO}	1100 V
Collector to Emitter Voltage	V_{CEO}	800 V
Emitter to Base Voltage	V_{EBO}	7 V
Collector Current	I_C	12 A
Peak Collector Current	i_{cp}	30 A
Base Current	I_B	6 A
Collector Dissipation	P_C	160 W
Junction Temperature	T_J	150 °C
Storage Temperature	T_{stg}	-55 to +150 °C

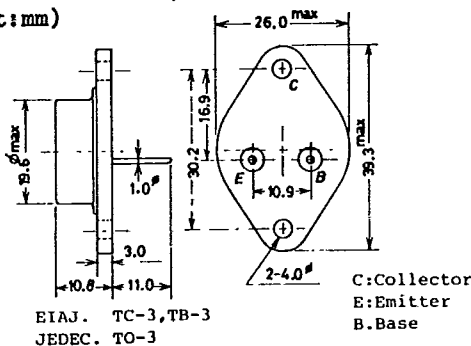
*Notes: $PW \leq 300\mu s, Duty\ Cycle \leq 10\%$
 $T_C = 25^\circ C$*

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=800V, I_E=0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$			10	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=5V, I_C=0.8A$	10*		40*	
	$h_{FE}(2)$	$V_{CE}=5V, I_C=4A$	8			
Gain Bandwidth Product	f_T	$V_{CE}=10V, I_C=0.8A$		15		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		240		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=6A, I_B=1.2A$			2.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=6A, I_B=1.2A$			1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	1100			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=5mA, R_{BE}=\infty$	800			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	7			V
C-E Sustain Voltage	$V_{CEX(sus)}$	$I_C=6A, I_{B1}=1.2A$ $L=1mH, I_{B2}=-1.2A, clamped$	800			V

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Case Outline 2017
(unit:mm)



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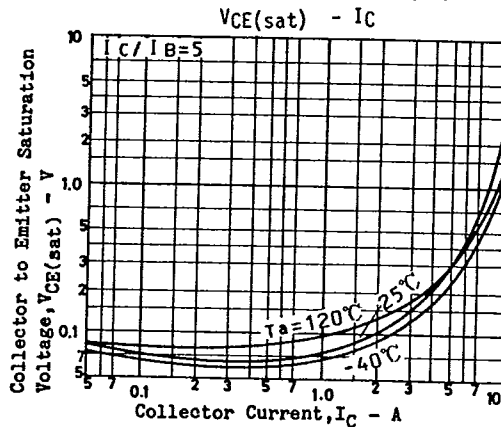
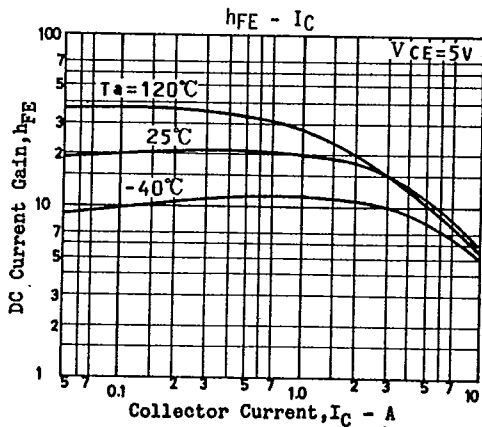
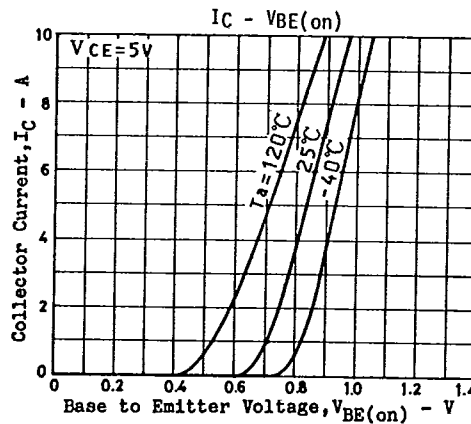
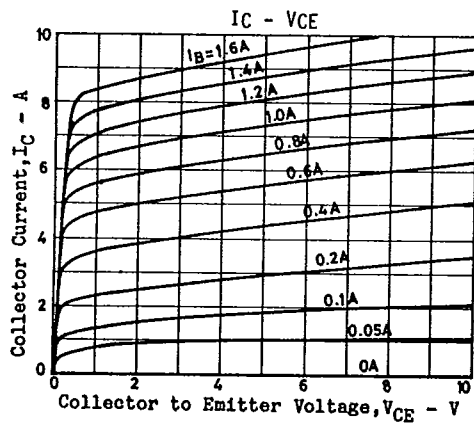
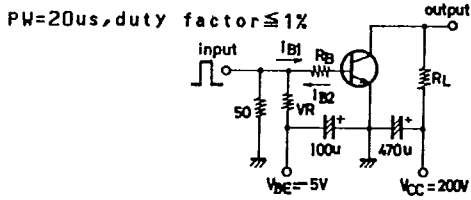
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			min	typ	max	unit
Turn-On Time	t_{on}	$I_C=8A, I_{B1}=1.6A, I_{B2}=-3.2A$			0.5	us
Storage Time	t_{stg}	$R_L=50\Omega, V_{CC}=400V$	"	"		
Fall Time	t_f	"	"	"	3.0	us
					0.3	us

*: The h_{FE1} of the 2SC3465 is classified as follows. When specifying the h_{FE1} rank, specify two ranks or more in principle.

10 K	20	15 L	30	20 M	40
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Switching Time Test Circuit



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