	No.2488	<h1 style="margin: 0;">2SC3664</h1> <p style="margin: 0;">NPN Triple Diffused Planar Type Darlington Silicon Transistor</p> <h2 style="margin: 0;">HIGH-VOLTAGE SWITCHING APPLICATIONS</h2>
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**Applications**

- . Induction cookers
- . High-voltage, high-power switching

**Features**

- . Fast speed (adoption of MBIT process)
- . High breakdown voltage ( $V_{CB0}=800V$ )
- . High reliability (adoption of HVP process)
- . On-chip damper diode

**Absolute Maximum Ratings at  $T_a=25^{\circ}C$**

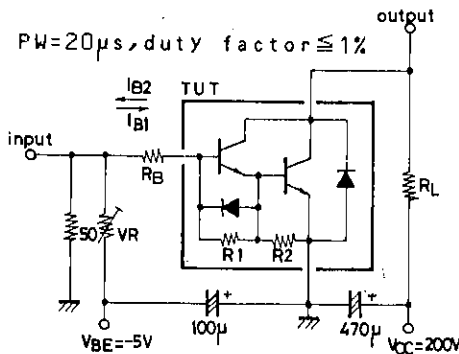
Collector-to-Base Voltage	$V_{CB0}$	800	V
Collector-to-Emitter Voltage	$V_{CEO}$	400	V
Emitter-to-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	20	A
Peak Collector Current	$i_{cp}$	40	A
Base Current	$I_B$	3	A
Collector Dissipation	$P_C$	150	W
Junction Temperature	$T_j$	150	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to +150	$^{\circ}C$

$T_c=25^{\circ}C$

**Electrical Characteristics at  $T_a=25^{\circ}C$**

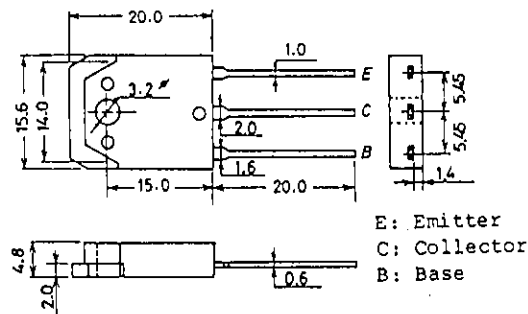
			min	typ	max	unit
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=800V, I_E=0$			1.0	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			600	mA
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=20A$	80			
Diode Forward Voltage	$V_F$	$I_{EC}=20A$			2.0	V
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=20A, I_B=1A$			2.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=20A, I_B=1A$			2.5	V
C-E Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA$	400			V
Fall Time	$t_f$	$I_C=20A, I_{B1}=1A, I_{B2}=-4A,$ $V_{CC}=200V, R_L=10\Omega$			1.5	$\mu s$

**Switching Time Test Circuit**

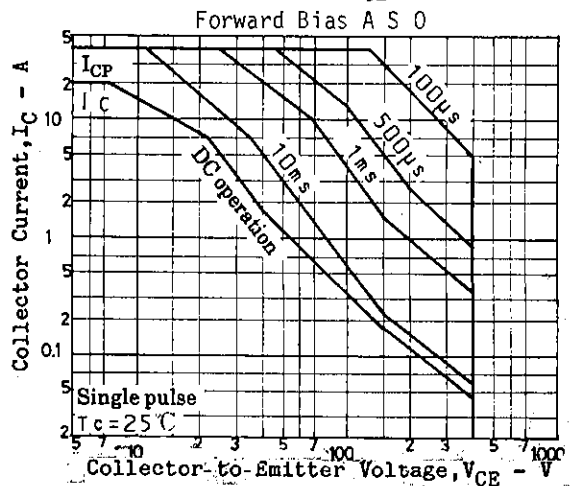
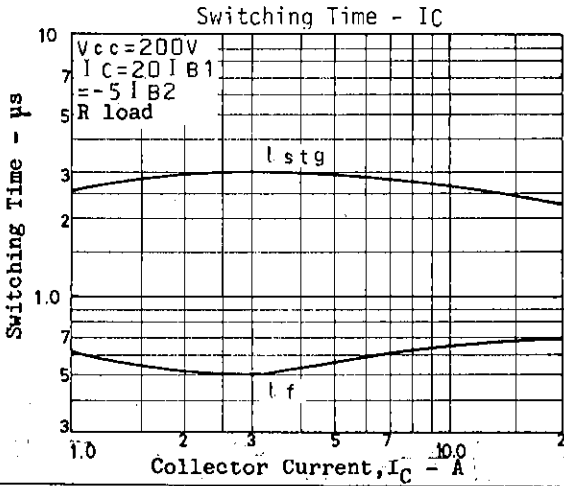
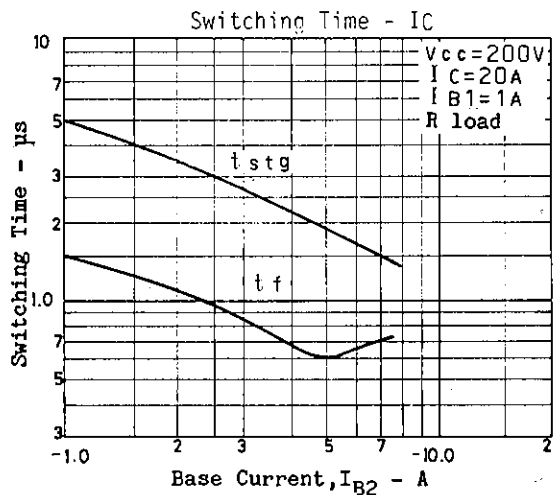
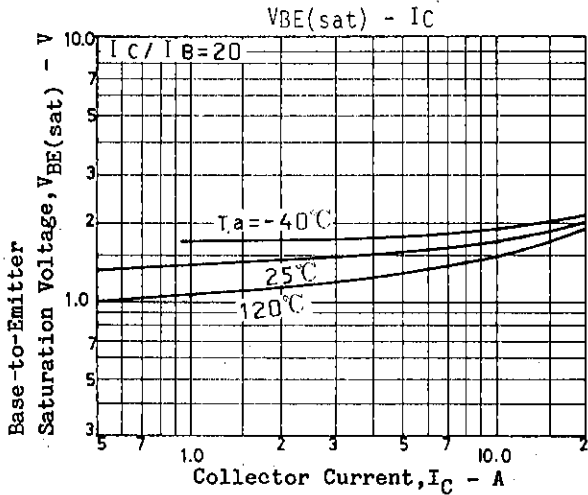
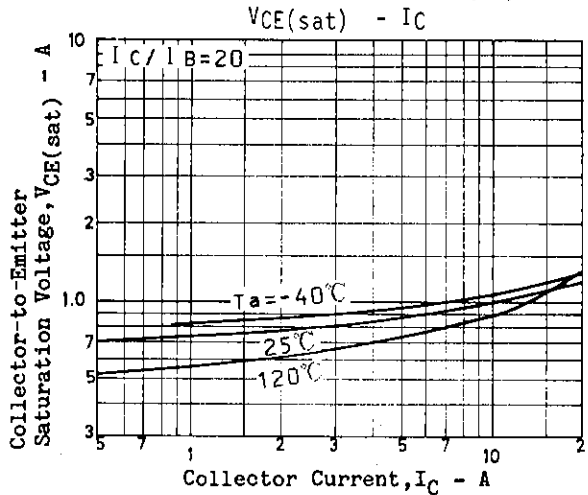
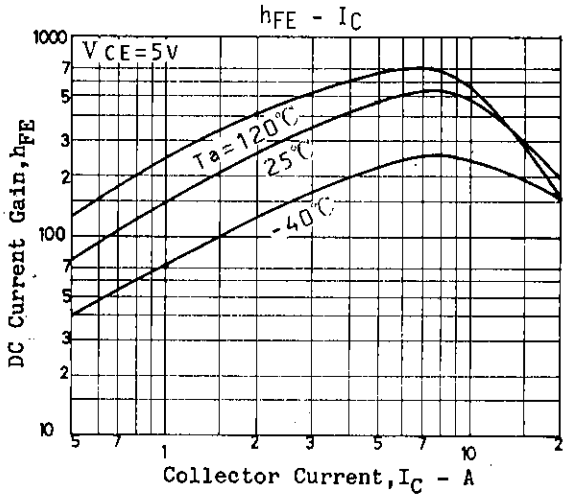
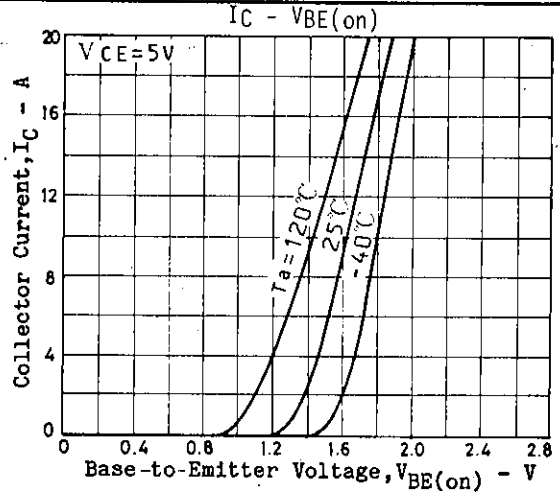
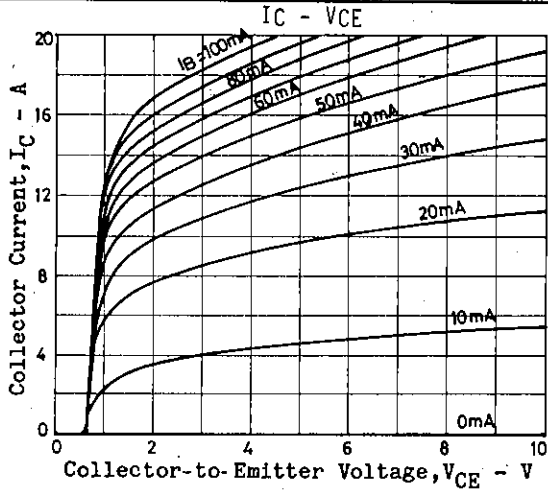


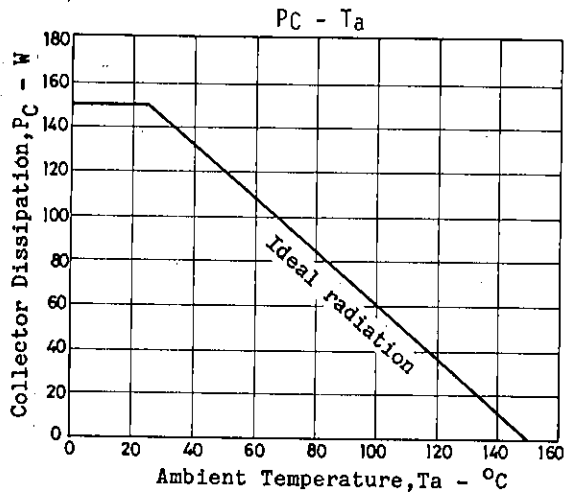
Unit (Resistance :  $\Omega$ , Capacitance : F)

**Package Dimensions 2022**  
(unit: mm)



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