

# 2SD1650

TO-3PIS

NPN Triple Diffused Planar Type Silicon Transistor  
For Horizontal Output (Built-in Damper Diode)



### Features:

- High Breakdown Voltage and High Reliability. : VCBO=1500V.
- High Switching Speed. :  $t_f=0.7\mu s$ (Max)
- Capable of being mounted easily due to one-point fixing type plastic mold package.
- Collector Metal(Fin) is fully covered with Mold Resin.

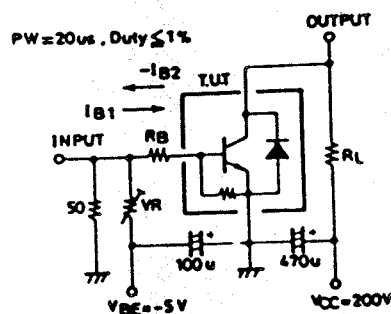
### Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	VCBO	1500	V
Collector to Emitter Voltage	VCEO	800	V
Emitter to Base Voltage	VEBO	6	V
Collector Current	IC	3.5	A
Peak Collector Current	icp	10	A
Collector Dissipation	PC	50	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

### Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	ICBO	VCB=800V, IE=0			10	uA
Emitter Cutoff Current	IEBO	VEB=4V, IC=0	40		130	mA
DC Current gain	hFE	VCE=5V, IC=0.5A	8			
Gain Bandwidth Product	ft	VCE=10V, IC=0.5A		3		MHz
C-E Saturation Voltage	VCE(sat)	IC=2.5A, IB=0.8A			8	V
B-E Saturation Voltage	VBE(sat)	IC=2.5A, IB=0.8A			1.5	V
C-B Breakdown Voltage	V(BR)CBO	IC=5mA, IE=0	1500			V
C-E Breakdown Voltage	V(BR)CEO	IC=100mA, RBE=∞	800			V
E-B Breakdown Voltage	V(BR)EBO	IE=200mA, IC=0	7			V
Diode Forward Voltage	VF	IEC=3.5A			2	V
Fall Time	tf	IC=3A, IB1=0.8A, IB2=-1.6A VCC=200V, RL=66.7ohm			0.7	us

### Switching Time Test Circuit



These specifications are subject to change without notice.