



SILICON NPN TRIPLE DIFFUSED MESA TYPE

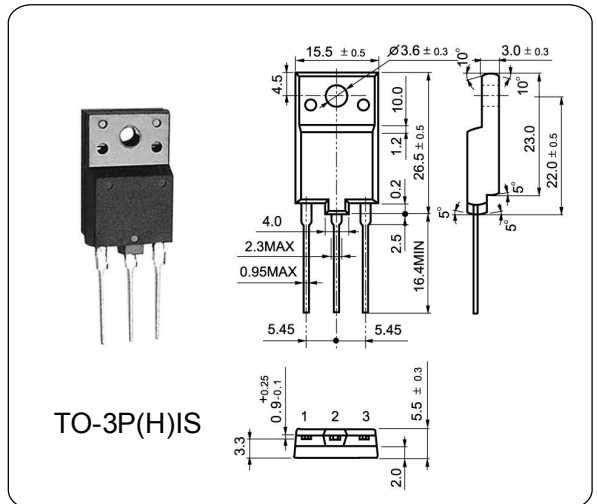
2SD2553

DESCRIPTION

HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION DISPLAY, COLOR TV
HIGH SPEED SWITCHING APPLICATIONS

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	1700	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	8.0	A
Collector Peak Current	$I_{C(peak)}$	16	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 Cutoff Current	I_{CB0}	$V_{CB}=1700V, I_E=0$	—	—	1.0	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4.0V, I_C=0$	66	—	200	mA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C=10mA, I_B=0$	150	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V, I_C=1.0A$	8	—	28	
	$h_{FE(2)}$	$V_{CE}=5.0V, I_C=6.0A$	5	—	9	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6.0A, I_B=1.2A$	—	—	5.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=6.0A, I_B=1.2A$	—	0.9	1.2	V
Forward Voltage (Damper Diode)	V_F	$I_F=8.0A$	—	1.6	2.0	V
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, f=1.0MHz, I_E=0$	—	155	—	pF
Transition Frequency	f_T	$V_{CE}=10V, I_C=100mA$	—	2.0	—	MHz
Storage Time	t_{stg}	$I_{CP}=6.0A, I_{B1}(end)=1.5A$ $f_{H1}=15.75kHz$	—	9	12	us