

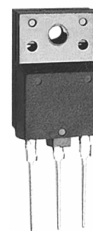


2SD2253

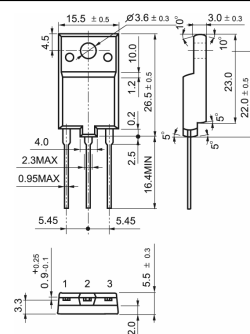
# Silicon NPN Triple Diffused Power Transistor

## GENERAL DESCRIPTION

HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION DISPLAY, COLOR TV  
High Speed Switching Applications



TO-3PM



## QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
$V_{C30}$	Collector-Base voltage		-	1700	V
$V_{CEO}$	Collector-emitter voltage (open base)		-	600	V
$I_C$	Collector current (DC)		-	6	A
$I_{CM}$	Collector current peak value		-	12	A
$P_{tot}$	Total power dissipation	$T_{mb} \leq 25^\circ C$	-	50	W
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C = 5.0A; I_B = 1.0A$	-	5	V
$V_F$	Diode forward voltage	$I_F = 6.0A$	1.6	2.0	V
$t_f$	Fall time	$I_{Csat} = 6.0A; f = 16KHz$	0.3	0.7	$\mu s$

## LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{C30}$	Collector-Base voltage		-	1700	V
$V_{CEO}$	Collector-emitter voltage (open base)		-	600	V
$I_C$	Collector current (DC)		-	6	A
$I_{CM}$	Collector current peak value		-	12	A
$I_B$	Base current (DC)		-	3	A
$I_{BM}$	Base current peak value		-		A
$P_{tot}$	Total power dissipation	$T_{mb} \leq 25^\circ C$	-	50	W
$T_{stn}$	Storage temperature		-55	150	$^\circ C$
$T_j$	Junction temperature		-	150	$^\circ C$

## ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
$I_{CEO}$	Collector cut-off current	$V_{CB} = 1700V; I_E = 0$	-	1.0	mA
$V_{CEsat}$	Collector-emitter saturation voltages	$I_C = 5.0A; I_B = 1.0A$	-	5	V
$V_{BEsat}$	Base-emitter saturation voltage	$I_C = 5.0A; I_B = 1.0A$	-	1.2	V
$h_{FE}$	DC current gain	$I_C = 1A; V_{CE} = 5V$	8	28	
$V_F$	Diode forward voltage	$I_F = 6.0A$	1.6	2.0	V
$f_T$	Transition frequency	$I_C = 0.1A; V_{CE} = 10V$	1	-	MHz
$t$	Turn-off storage time				
$t_f$	Turn-off fall time	$I_C = 6A, I_{B(end)} = 1.5A,$	0.3	0.7	$\mu s$