

isc Silicon NPN Power Transistor

2SD5072

DESCRIPTION

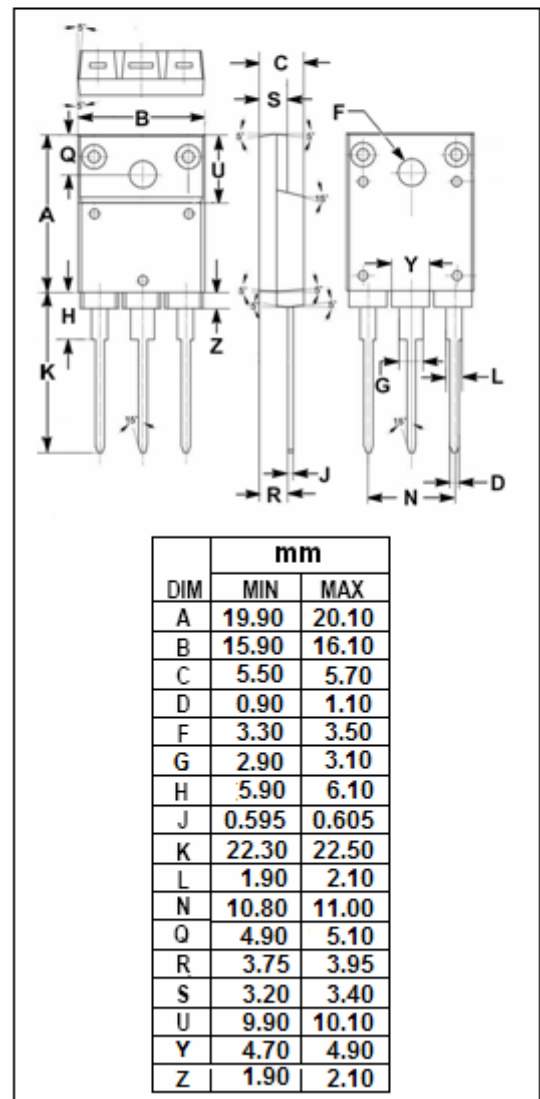
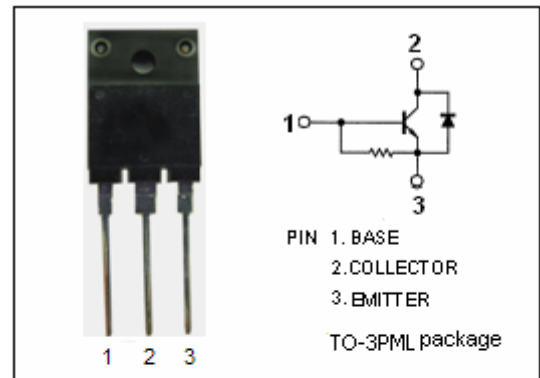
- High Breakdown Voltage-  
:  $V_{CBO} = 1500V$  (Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode

APPLICATIONS

- Designed for color TV horizontal output applications

ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current- Continuous	5	A
$I_{CM}$	Collector Current-Peak	16	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	60	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



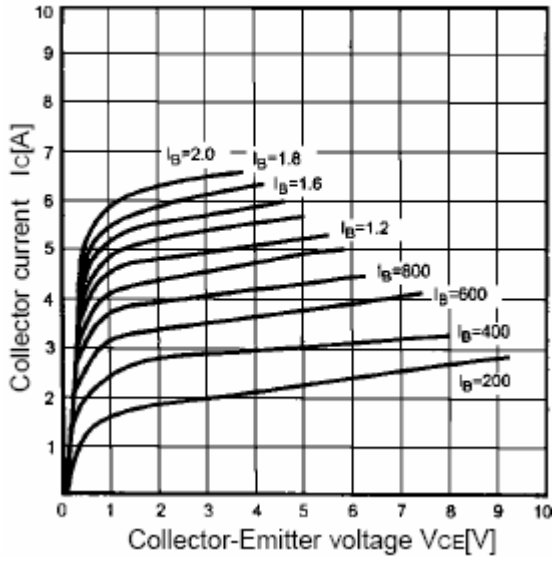
**isc Silicon NPN Power Transistor****2SD5072****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 4A; I_B= 0.8A$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 4A; I_B= 0.8A$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 800V ; I_E= 0$			10	$\mu$ A
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 4V ; I_C= 0$	40		200	mA
$h_{FE}$	DC Current Gain	$I_C= 1A ; V_{CE}= 5V$	8			
$V_{ECF}$	C-E Diode Forward Voltage	$I_F= 5A$			2.0	V
$f_T$	Current-Gain—Bandwidth Product	$I_C= 1A ; V_{CE}= 10V$		3		MHz
$t_f$	Fall Time	$I_C= 4A , I_{B1}= 0.8A ; I_{B2}= -1.6A$ $R_L= 50 \Omega ; V_{CC}= 200V$			0.4	$\mu$ s

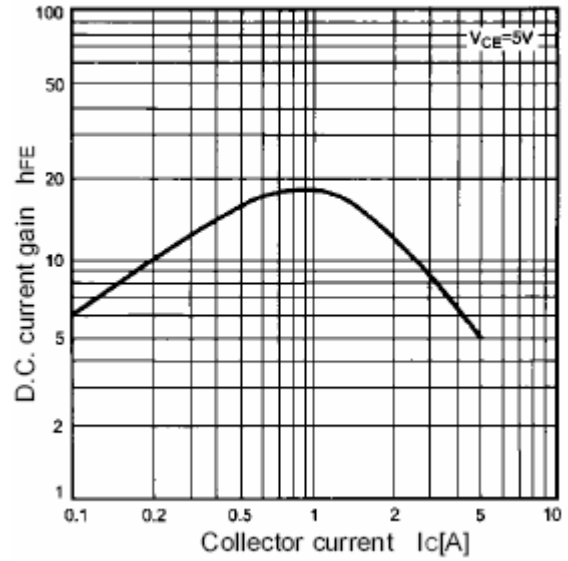
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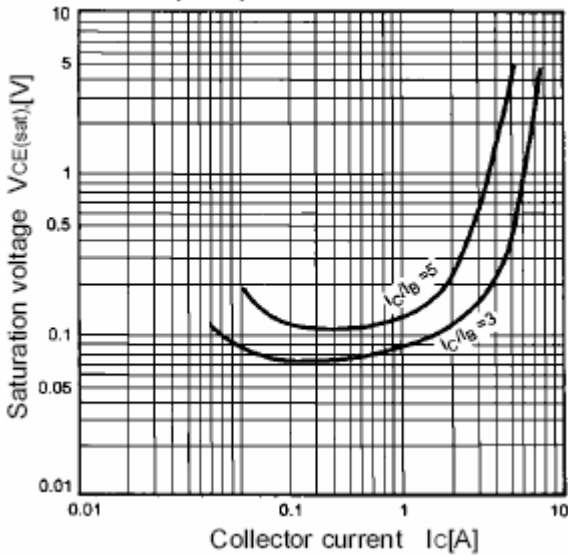
**$I_C$ - $V_{CE}$  Characteristics**



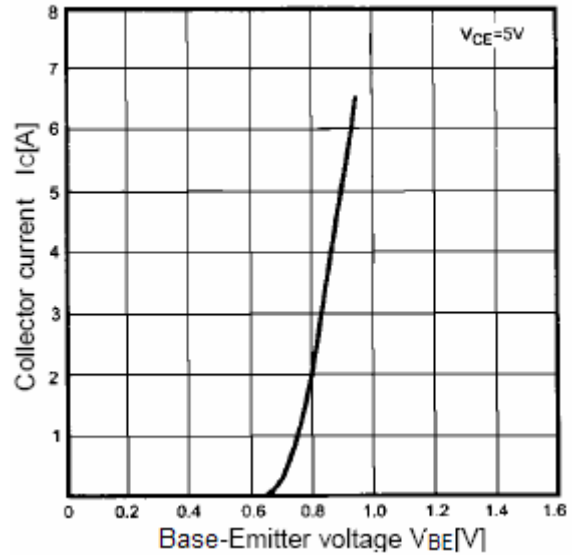
**$h_{FE}$ - $I_C$  Characteristics**



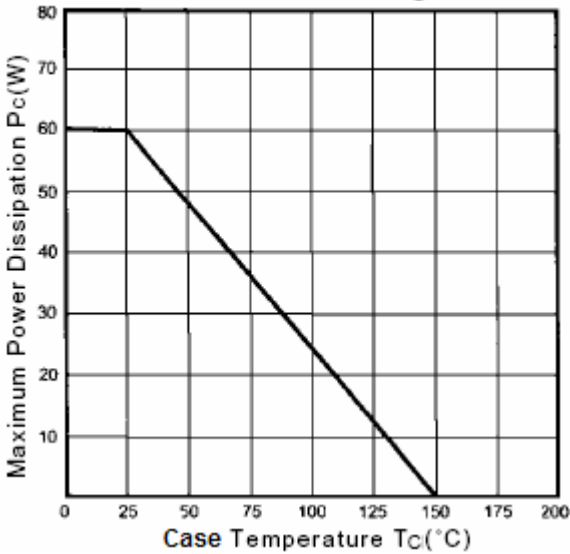
**$V_{CE(sat)}$ - $I_C$  Characteristics**



**$I_C$ - $V_{BE}$  Characteristics**



**Power Derating**



**Safe Operating Area**

