

isc Silicon NPN Power Transistor

2SC4125

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DESCRIPTION

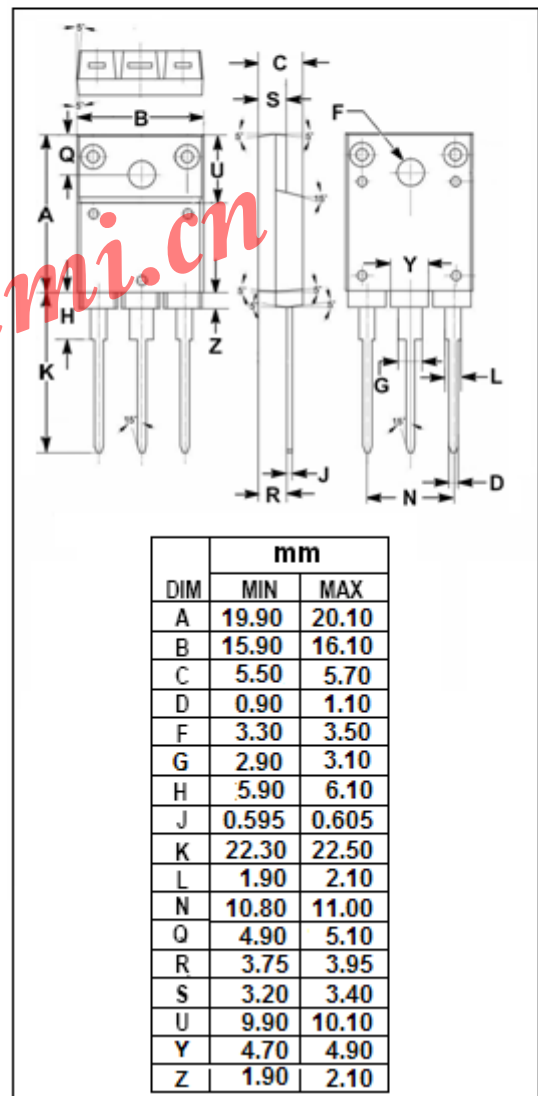
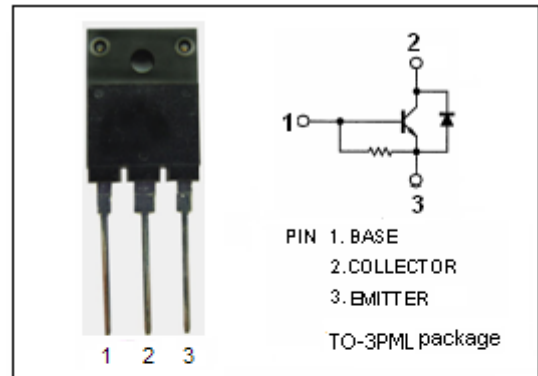
- High Breakdown Voltage-  
:  $V_{CBO}= 1500V$  (Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode

APPLICATIONS

- Designed for very high-definition color display horizontal deflection 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	10	A
$I_{CP}$	Collector Current-Peak	25	A
$P_C$	Collector Power Dissipation @ $T_a=25^{\circ}C$	3	W
	Collector Power Dissipation @ $T_C=25^{\circ}C$	70	
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=800\text{V}; I_E=0$			10	$\mu\text{A}$
$I_{CES}$	Collector Cutoff Current	$V_{CE}=1500\text{V}; R_{BE}=0$			1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$	40		130	mA
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8			
$h_{FE-2}$	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	4		6	
$V_{ECF}$	C-E Diode Forward Voltage	$I_F=10\text{A}$			2.0	V

## Switching Times

$t_s$	Storage Time	$I_C=6\text{A}; I_{B1}=1.2\text{A}; I_{B2}=-2.4\text{A}$			3.0	$\mu\text{s}$
$t_f$	Fall Time			0.1	0.2	$\mu\text{s}$