

isc Silicon NPN Power Transistor

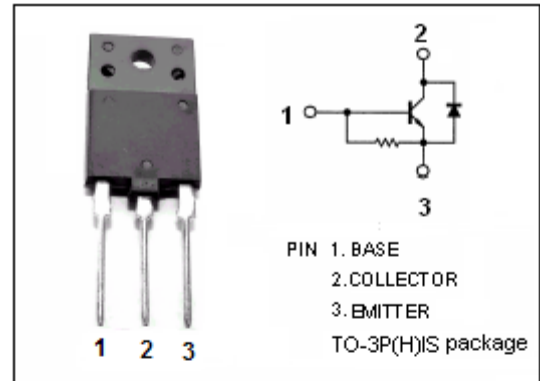
2SD2524

DESCRIPTION

- High Breakdown Voltage-  
:  $V_{CBO} = 1700V$  (Min)
- High Switching Speed
- Low Saturation Voltage
- Built-in Damper Diode

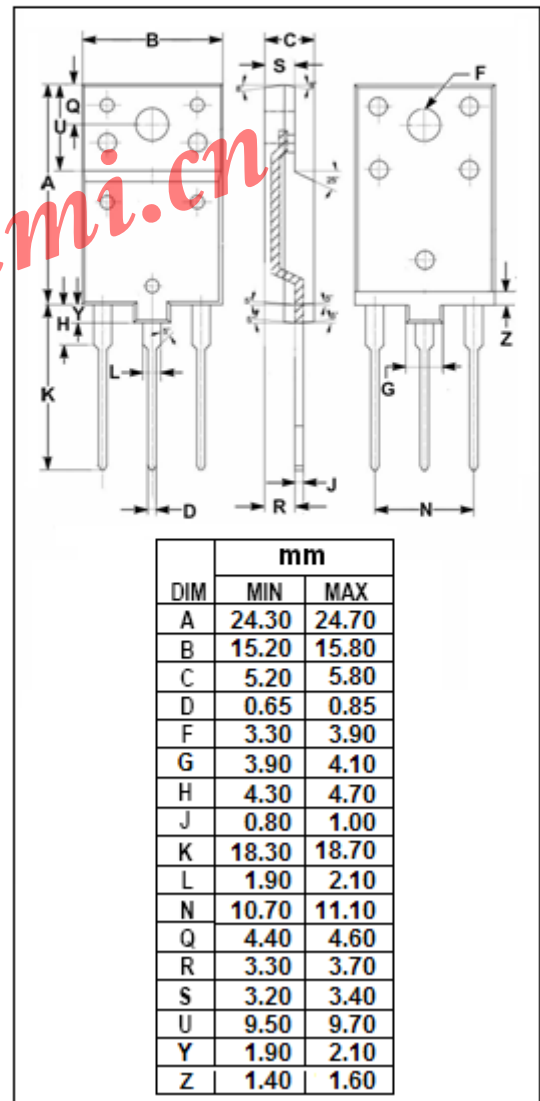
APPLICATIONS

- Designed for horizontal deflection output applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1700	V
$V_{CES}$	Collector-Emitter Voltage	1700	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current- Continuous	8	A
$I_{CM}$	Collector Current-Peak	20	A
$I_{BM}$	Base Current-Peak	5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ C$	100	W
	Collector Power Dissipation @ $T_a=25^\circ C$	3	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



## isc Silicon NPN Power Transistor

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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=500\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=2\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=2\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=1000\text{V}; I_E=0$			50	$\mu\text{A}$
		$V_{CB}=1700\text{V}; I_E=0$			1.0	mA
$h_{FE}$	DC Current Gain	$I_C=6\text{A}; V_{CE}=5\text{V}$	4		10	
$V_{ECF}$	C-E Diode Forward Voltage	$I_F=8\text{A}$			2.0	V
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=10\text{V}$		3		MHz

Resistive Load

$t_s$	Storage Time	$I_C=6\text{A}, I_{B(end)}=2\text{A}, L_{leak}=5\mu\text{H}$			12	$\mu\text{s}$
$t_f$	Fall Time				0.8	$\mu\text{s}$