

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistor

3DD303A

DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 40V(\text{Min})$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 3A$

APPLICATIONS

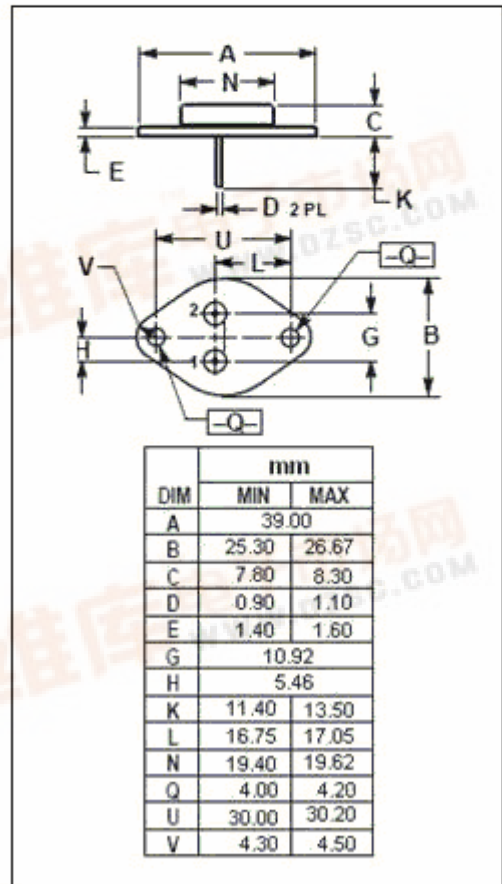
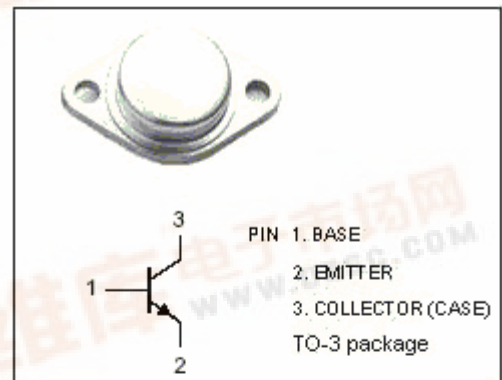
- Designed for B/W TV vertical output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	4	V
$I_C$	Collector Current-Continuous	3	A
$P_C$	Collector Power Dissipation @ $T_C=75^\circ\text{C}$	30	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^\circ\text{C/W}$



**isc Silicon NPN Power Transistor****3DD303A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=5\text{mA}; I_B=0$	40			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	4			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_E=0$	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.3\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.3\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=50\text{V}; I_E=0$			0.5	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=25\text{V}; I_B=0$			0.1	mA
$h_{FE}$	DC Current Gain	$I_C=2\text{A}; V_{CE}=5\text{V}$	40		250	