

isc Silicon NPN Power Transistors

D44TD3/4/5

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
 : $V_{CEO(SUS)} = 300V(\text{Min})$ - D44TD3
 = $350V(\text{Min})$ - D44TD4
 = $400V(\text{Min})$ - D44TD5
- High Switching Speed
- Low Saturation Voltage

APPLICATIONS

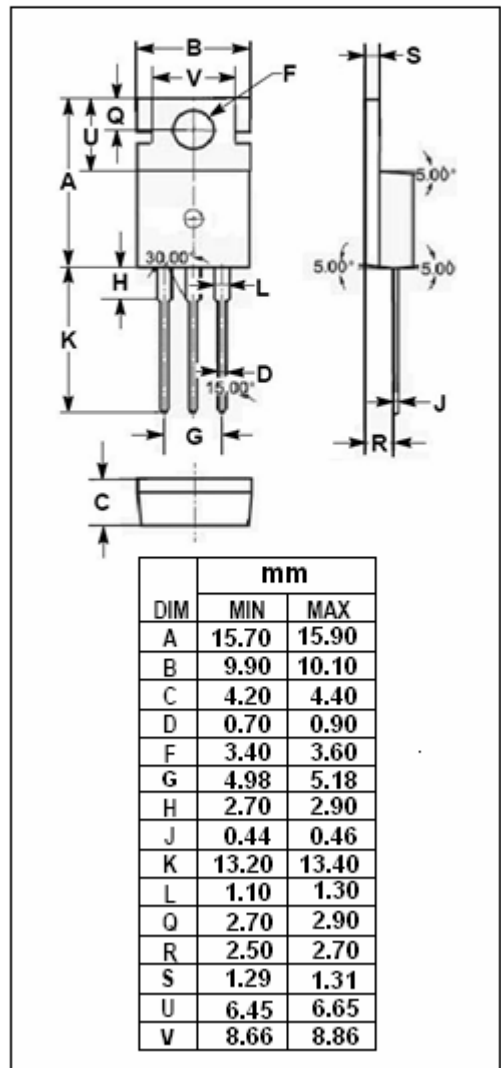
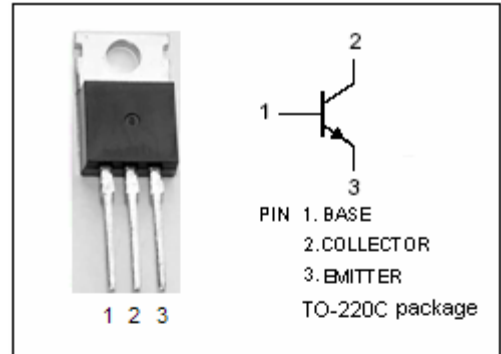
- Designed for switching regulators, high resolution deflection circuits, inverters and motor drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage	D44TD3	400
		D44TD4	500
		D44TD5	600
V_{CEO}	Collector-Emitter Voltage	D44TD3	300
		D44TD4	350
		D44TD5	400
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.56	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	D44TD3	$I_C=0.1\text{A}; I_B=0$	300		V
		D44TD4		350		
		D44TD5		400		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C=2\text{A}; I_B=0.4\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		$I_C=2\text{A}; I_B=0.4\text{A}$		1.5	V
I_{CEV}	Collector Cutoff Current	D44TD3	$V_{CE}=400\text{V}; V_{BE(off)}=1.5\text{V}$		0.1	mA
		D44TD4	$V_{CE}=500\text{V}; V_{BE(off)}=1.5\text{V}$		0.1	
		D44TD5	$V_{CE}=600\text{V}; V_{BE(off)}=1.5\text{V}$		0.1	
I_{EBO}	Emitter Cutoff Current		$V_{EB}=6\text{V}; I_C=0$		1.0	mA
h_{FE}	DC Current Gain		$I_C=2\text{A}; V_{CE}=3\text{V}$	5		