

isc Silicon NPN Darlington Power Transistor

2SD1793

DESCRIPTION

- · Collector-Emitter Sustaining Voltage-
 - : V_{CEO(SUS)}= 100V (Min.)
- · High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

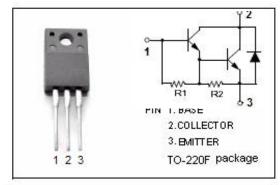
 Designed for audio frequency power amplifier and low speed high current switching industrial use.

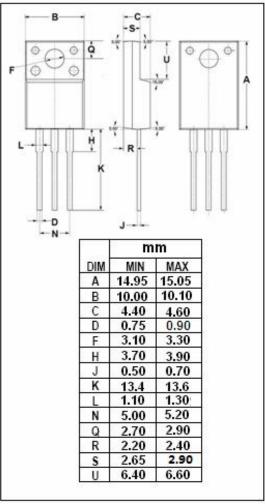
ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

ADSOLUTE MAXIMUM KATINGS(1a-25C)							
SYMBOL	PARAMETER	VALUE	UNIT				
Vceo	Collector-Emitter Voltage	100	V				
V _{CBO}	Collector-Base Voltage	100	V				
V _{EBO}	Emitter-Base Voltage	7	V				
Ic	Collector Current-Continunous	10	А				
I _{CM}	Collector Current-Peak	15	А				
I _B	Base Current-Continunous	0.5	Α				
Івм	Base Current-Peak	1.0	А				
Pc	Collector Power Dissipation @T _C =25℃		W				
T _j	Junction Temperature	150	$^{\circ}$				
T _{stg}	Storage Temperature Range	-55~150	$^{\circ}$				

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT
Rth j-c	Thermal Resistance, Junction to Case		°C/W







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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

10-23 C um	16-23 C unless otherwise specified									
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT				
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 10mA			1.5	V				
V _{BE} (sat)	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 10mA			2.0	V				
Ісво	Collector Cutoff Current	V _{CB} = 100V; I _E = 0			0.1	mA				
I _{CEO}	Collector Cutoff Current	V _{CE} = 100V; I _B = 0			0.1	mA				
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			5	mA				
h _{FE}	DC Current Gain	I _C = 5A, V _{CE} = 3V	1500		30000					
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 10V		20		MHz				
Switching T	Switching Times; Resistive Load									
ton	Turn-On Time				2	μS				
t _s	Storage Time	I _C = 5A; I _{B1} = 5mA; I _{B2} = 10mA; V _{BB2} = 4V; R _L = 6 Ω			12	μS				
t _f	Fall Time				5	μ s				

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