

isc Silicon NPN Power Transistor

2SC2791

DESCRIPTION

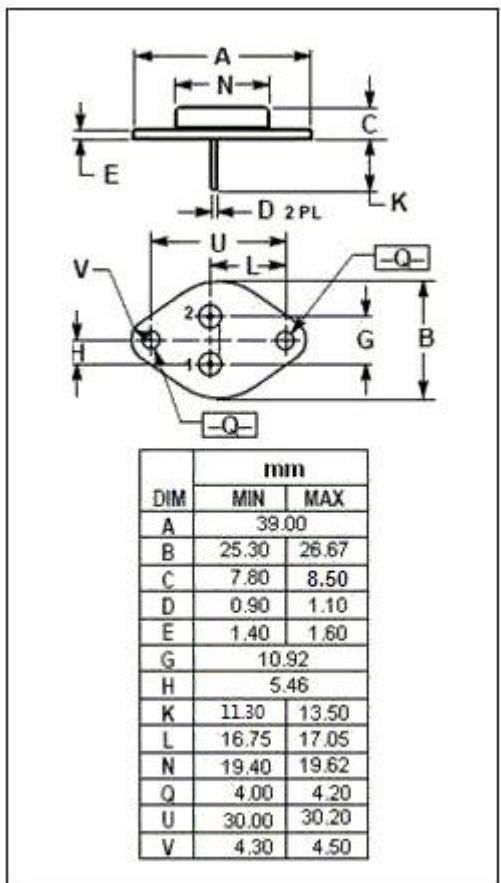
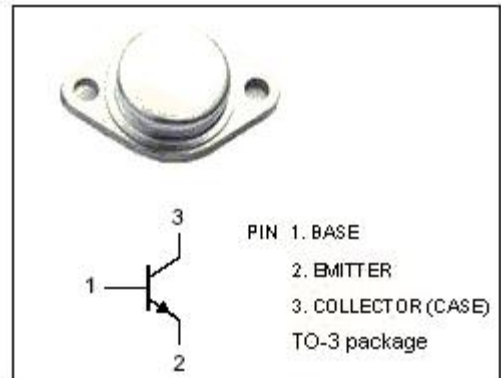
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 800V(\text{Min.})$
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High speed and high voltage switching applications
- Switching regulator applications
- High speed DC-DC converter applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC2791****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	$I_C = 10\text{mA}; I_B = 0$	800			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	900			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 3\text{A}; I_B = 0.6\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 3\text{A}; I_B = 0.6\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 800\text{V}; I_E = 0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 7\text{V}; I_C = 0$			1.0	mA
h_{FE-1}	DC Current Gain	$I_C = 10\text{mA}; V_{CE} = 5\text{V}$	10			
h_{FE-2}	DC Current Gain	$I_C = 3\text{A}; V_{CE} = 5\text{V}$	10			

Switching times

t_r	Rise Time	$I_C = 3\text{A}, I_{B1} = 0.3\text{A}; I_{B2} = -0.8\text{A}$ $R_L = 150\Omega; V_{CC} = 400\text{V}$ $P_W = 20\mu\text{s}; \text{Duty} \leq 1\%$			1.0	μs
t_{stg}	Storage Time				3.5	μs
t_f	Fall Time				1.0	μs

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