

isc Silicon NPN Darlington Power Transistor
2N6283
DESCRIPTION

- Built-in Base-Emitter Shunt Resistors
- High DC current gain-
 $h_{FE} = 750$ (Min) @ $I_C = 10$ Adc
- Collector-Emitter Sustaining Voltage-
 $V_{CEO(SUS)} = 80V$ (Min)
- Complement to type 2N6286
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

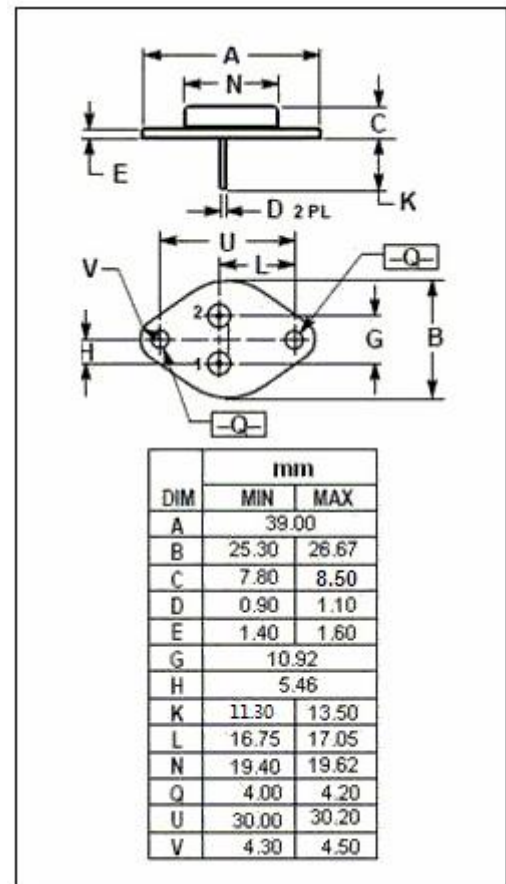
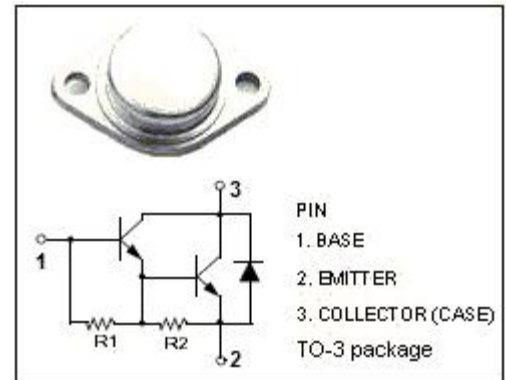
- Intended for general purpose amplifier and low frequency switching applications, such as linear and switching industrial equipment.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current -Continuous	20	A
I_{CP}	Collector Current-Peak	40	A
I_B	Base Current	0.5	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ C$	160	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	ThermalResistance, Junction to Case	1.09	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA}$; $I_B= 0$	80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 10\text{A}$; $I_B= 40\text{mA}$		2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 20\text{A}$; $I_B= 200\text{mA}$		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation voltage	$I_C= 20\text{A}$; $I_B= 200\text{mA}$		4.0	V
$V_{BE(on)}$	Base-Emitter On voltage	$I_C= 10\text{A}$; $V_{CE}= 3\text{V}$		2.8	V
I_{CEO}	Collector Cutoff current	$V_{CE}= 40\text{V}$; $I_B=0$		1.0	mA
I_{EBO}	Emitter Cut-off current	$V_{EB}= 5\text{V}$; $I_C= 0$		2.0	mA
h_{FE-1}	DC Current Gain	$I_C= 10\text{A}$; $V_{CE}= 3\text{V}$	750	18000	
h_{FE-2}	DC Current Gain	$I_C= 20\text{A}$; $V_{CE}= 3\text{V}$	100		
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}= 10\text{V}$; $f_{test}= 1.0\text{MHz}$		400	pF

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