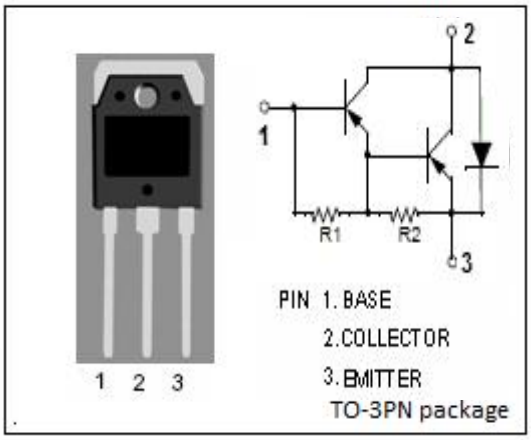
isc Silicon PNP Darlington Power Transistor 2STW200

DESCRIPTION

- With TO-3PN packaging
- Very high DC current gain
- Monolithic darlington transistor with integrated antiparallel collector-emitter diode
- Complement to Type 2STW100
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

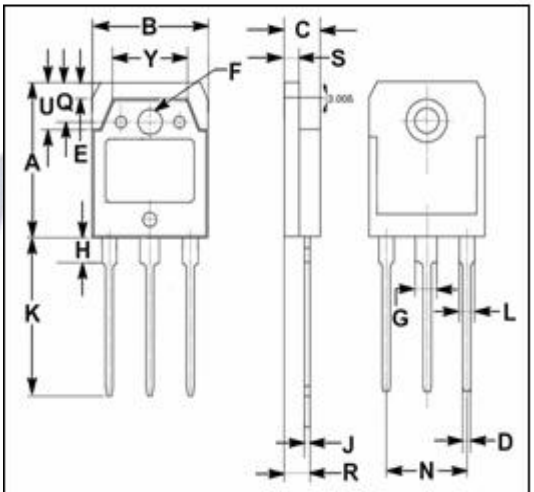
- AC-DC motor control
- Electronic ignition
- Alternator regulator

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-25	A
I_{CM}	Collector Current-Peak	-40	A
I_B	Base Current	-6	A
P_C	Collector Power Dissipation	130	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.96	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=- 50mA, I_B= 0	-80		V
$V_{CE(sat)1}$	Collector-Emitter Saturation Voltage	I_C= -5A ,I_B= -20mA		-1.2	V
$V_{CE(sat)2}$	Collector-Emitter Saturation Voltage	I_C= -10A ,I_B=- 40mA		-1.75	V
$V_{CE(sat)3}$	Collector-Emitter Saturation Voltage	I_C= -20A ,I_B=- 80mA		-3.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -20A ,I_B= -80mA		-3.3	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -10A ; V_{CE}= -3V		-3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}=-80V, I_E= 0		-50	μA
I_{CEO}	Collector Cutoff Current	V_{CE}=- 80V, I_B= 0		-50	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}=- 5V; I_C= 0		-2	mA
h_{FE-1}	DC Current Gain	I_C=- 5A ; V_{CE}= -3V	600	15000	
h_{FE-2}	DC Current Gain	I_C= -10A ; V_{CE}=- 3V	500	12000	
h_{FE-3}	DC Current Gain	I_C=- 20A ; V_{CE}= -3V	300	6000	