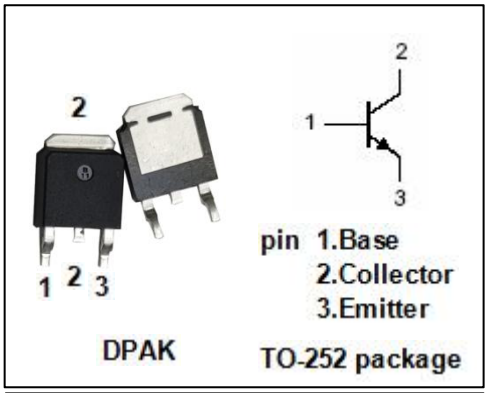
isc Silicon NPN Power Transistor — 2SCR583D3



DESCRIPTION

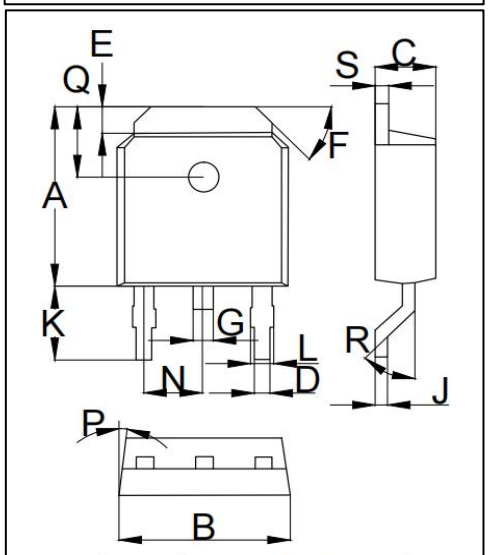
- Collector-emitter breakdown voltage
  : BV_{CEO}= 50V(Min)
- High DC Current Gain
  : h_{FE}= 180-450@ (V_{CE}= 3V, I_C= 1A)
- Low Saturation Voltage
  : $V_{CE(sat)}$= 0.35V(Max)@ (I_C= 3A, I_B= 0.15A)
- Complement to Type 2SAR583D3
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use as a driver in DC/DC converters and actuators.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Pulse	14	A
P_T	Total Power Dissipation @T_C=25℃	10	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm	
	MIN	MAX
A	6.90	7.30
B	6.50	6.70
C	2.20	2.40
D	0.50	0.72
E	0.90	1.10
F	45°	
G	0.70	0.90
J	0.40	0.60
K	2.85	3.50
L	0.70	0.90
N	2.20	2.35
P	7°	
Q	2.750	2.850
R	50°	
S	0.40	0.60

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{CEO}	Collector-emitter breakdown voltage	I_C= 1.0mA, Ib=0	50		V
BV_{CBO}	Collector-base breakdown voltage	I_C= 0.1mA, Ib=0	50		V
BV_{EBO}	Emitter-base breakdown voltage	I_E= 0.1mA, Ib=0	6.0		V
I_{CBO}	Collector Cutoff Current	V_{CB}= 50V; I_E= 0		10	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 50V; Ib=0		1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		10	μA
h_{FE}	DC Current Gain	I_C= 1.0A; V_{CE}= 2.0V	180	450	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3.0A; I_B= 0.15A		0.35	V