

isc Silicon NPN Power Transistor
2SCR583D3
DESCRIPTION

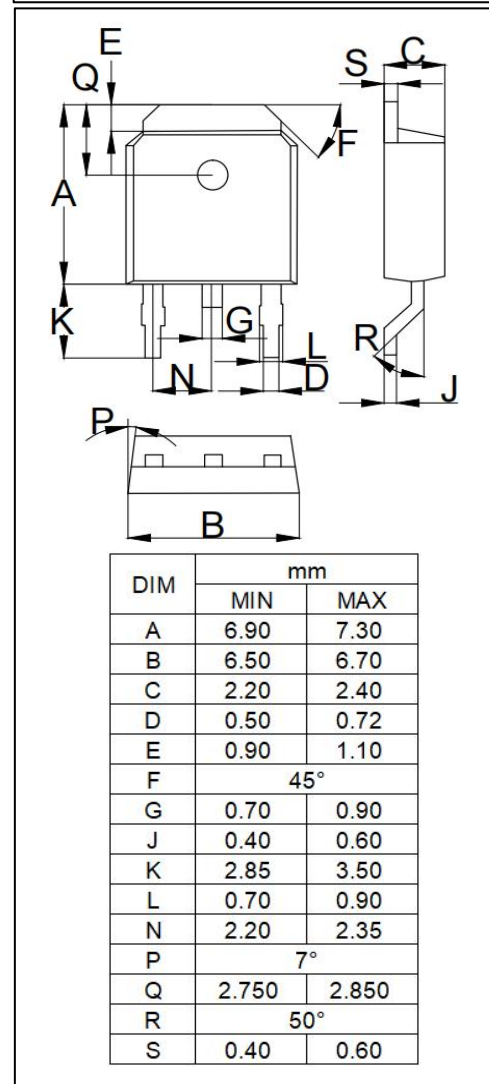
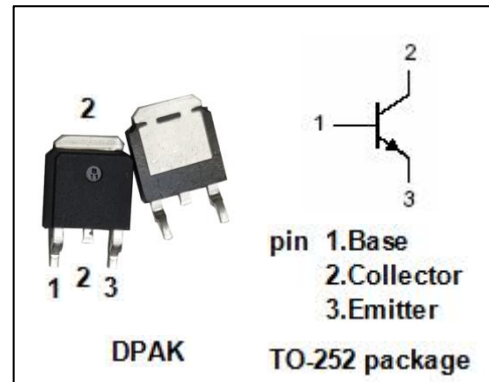
- Collector-emitter breakdown voltage
: $BV_{CEO} = 50V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 180-450@ (V_{CE} = 3V, I_C = 1A)$
- Low Saturation Voltage
: $V_{CE(sat)} = 0.35V(\text{Max})@ (I_C = 3A, I_B = 0.15A)$
- Complement to Type 2SAR583D3
- Minimum Lot-to-Lot variations for robust device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

APPLICATIONS

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

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

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 @ $T_c=25^\circ\text{C}$	10	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV _{CEO}	Collector-emitter breakdown voltage	I _C = 1.0mA, I _b =0	50		V
BV _{CBO}	Collector-base breakdown voltage	I _C = 0.1mA, I _b =0	50		V
BV _{EBO}	Emitter-base breakdown voltage	I _E = 0.1mA, I _b =0	6.0		V
I _{CBO}	Collector Cutoff Current	V _{CB} = 50V; I _E = 0		10	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 50V; I _b =0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		10	μ A
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

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