

## isc Silicon NPN Power Transistor

2SD1069

## DESCRIPTION

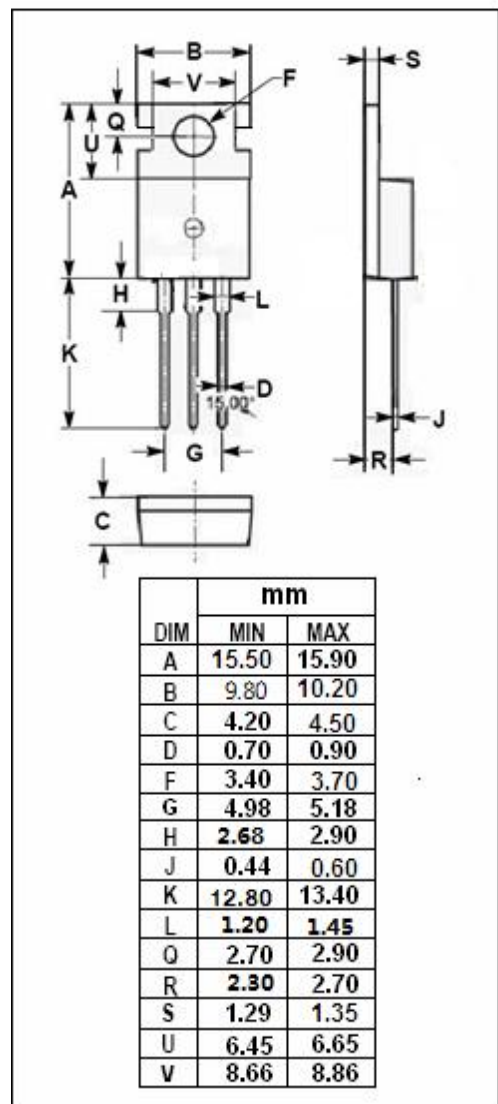
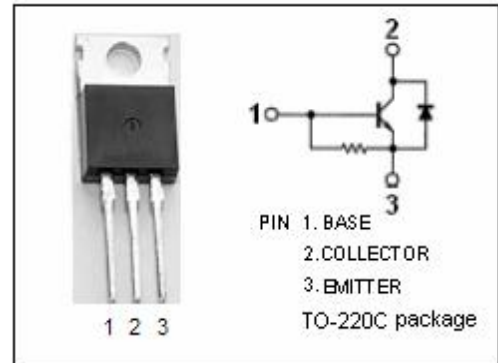
- High Collector Current Capability
- High Collector Power Dissipation Capability
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- TV horizontal deflection output applications.
- High voltage switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	300	V
$V_{CEO}$	Collector-Emitter Voltage	150	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	7	A
$I_{CM}$	Collector Current-Peak	15	A
$I_B$	Base Current-Continuous	2	A
$P_C$	Collector Power Dissipation $T_a=25^{\circ}\text{C}$	1.75	W
	Collector Power Dissipation $T_C=25^{\circ}\text{C}$	40	
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



**isc Silicon NPN Power Transistor****2SD1069****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; L= 50mH	150			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 1mA; I <sub>E</sub> = 0	300			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 0.1A; I <sub>C</sub> = 0	6			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A			1.5	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 250V; V <sub>BE</sub> = 0			1	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 5A; V <sub>CE</sub> = 1.5V	10			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.2A; V <sub>CE</sub> = 10V		18		MHz
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 6A			1.8	V
t <sub>f</sub>	Fall Time	I <sub>CP</sub> = 5A; I <sub>B1(end)</sub> = 0.5A			1.0	μs

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