

# isc Silicon PNP Power Transistor

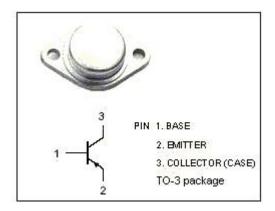
2SA1041

### **DESCRIPTION**

- ·High Current Capability
- ·Good Linearity of hFE
- ·Collector-Emitter Breakdown Voltage-
  - : V<sub>(BR)CEO</sub>= -120V(Min.)
- ·Complement to Type 2SC2431
- ·Minimum Lot-to-Lot variations for robust device performance and reliable operation

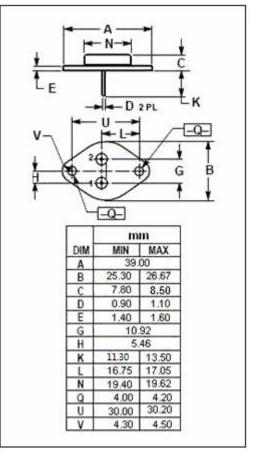
### **APPLICATIONS**

·Designed for high speed, high voltage switching systems.



## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	-120	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	-120	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
lc	Collector Current-Continuous	-15	А	
I <sub>B</sub>	Base Current-Continuous	-5	А	
Pc	Collector Power Dissipation @T <sub>C</sub> =25°C	100	W	
T <sub>j</sub>	Junction Temperature	175	$^{\circ}$	
T <sub>stg</sub>	Storage Temperature	-65~175	$^{\circ}$	





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### **ELECTRICAL CHARACTERISTICS**

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	$I_{C}$ = -10mA; $R_{BE}$ = $\infty$	-120			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -50 μ A; I <sub>E</sub> = 0	-120			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.7A			-1.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = -7A; I <sub>B</sub> = -0.7A			-1.8	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -120V; I <sub>E</sub> = 0			-50	$\mu$ A
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -120V; I <sub>B</sub> = 0			-1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-50	μΑ
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1.5A; V <sub>CE</sub> = -5V	35		200	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -15A; V <sub>CE</sub> = -5V	7			
Сов	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1.0MHz		350		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -1A; V <sub>CE</sub> = -10V		60		MHz

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