

# isc Silicon PNP Power Transistor

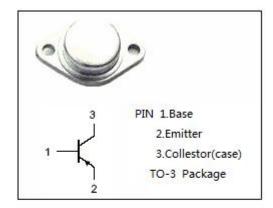
#### **DESCRIPTION**

- · Wide Safety Operation Area
- · Low Collector Saturation Voltage
  - :  $V_{CE(sat)}$ = -0.5V(Max)@ $I_C$ = -12A
- Complement to Type 2SD1240
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



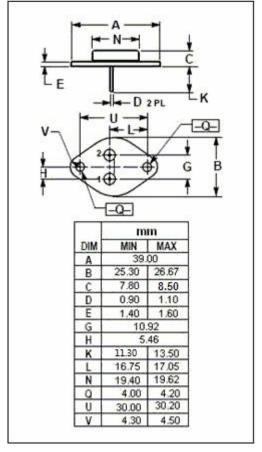
### **APPLICATIONS**

• Designed for large current switching of relay drivers, highspeed inverters, converters applications.



## 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	-80	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V	
Ic	Collector Current-Continuous	-25	А	
Ісм	Collector Current-Peak	-40	А	
Pc	Total Power Dissipation @ T <sub>C</sub> =25℃	120	W	
TJ	Junction Temperature 150		$^{\circ}$ C	
T <sub>stg</sub>	Storage Temperature Range	-55~150	$^{\circ}$ C	





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2SB924

### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA; R <sub>BE</sub> = ∞	-80			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -1mA; 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	-6			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -12A; I <sub>B</sub> = -1.2A			-0.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -80V; I <sub>E</sub> = 0			-0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-0.1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -2V	70		280	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -12A; V <sub>CE</sub> = -2V	30			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -1A; V <sub>CE</sub> = -2V		20		MHz

### ♦ h<sub>FE-1</sub> Classifications

Q	R	s
70-140	100-200	140-280

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