

**Silicon PNP Power Transistor**

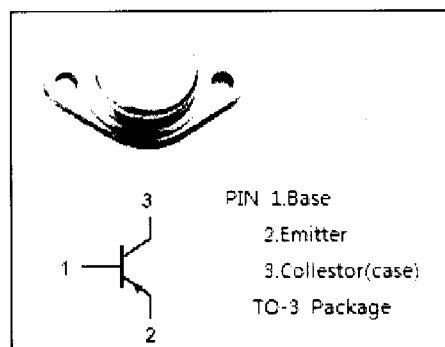
**2SB924**

**DESCRIPTION**

- Wide Safety Operation Area
- Low Collector Saturation Voltage  
 :  $V_{CE(sat)} = -0.5V(\text{Max}) @ I_C = -12A$
- Complement to Type 2SD1240

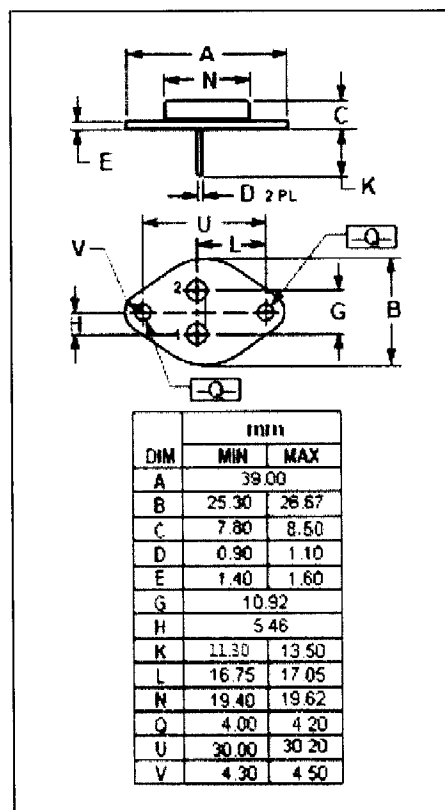
**APPLICATIONS**

- Designed for large current switching of relay drivers, high-speed inverters, converters applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-120	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-25	A
$I_{CM}$	Collector Current-Peak	-40	A
$P_C$	Total Power Dissipation @ $T_c=25^\circ\text{C}$	120	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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# 2SB924

## ELECTRICAL CHARACTERISTICS

$T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}; R_{BE} = \infty$	-80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}; I_E = 0$	-120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}; I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -12\text{A}; I_B = -1.2\text{A}$			-0.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			-0.1	mA
$h_{FE-1}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -2\text{V}$	70		280	
$h_{FE-2}$	DC Current Gain	$I_C = -12\text{A}; V_{CE} = -2\text{V}$	30			
$f_T$	Current-Gain—Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -2\text{V}$		20		MHz

### ◆ $h_{FE-1}$ Classifications

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