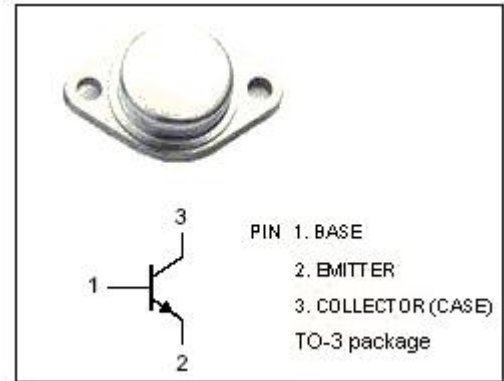


**isc Silicon NPN Power Transistor**
**2SC2123**
**DESCRIPTION**

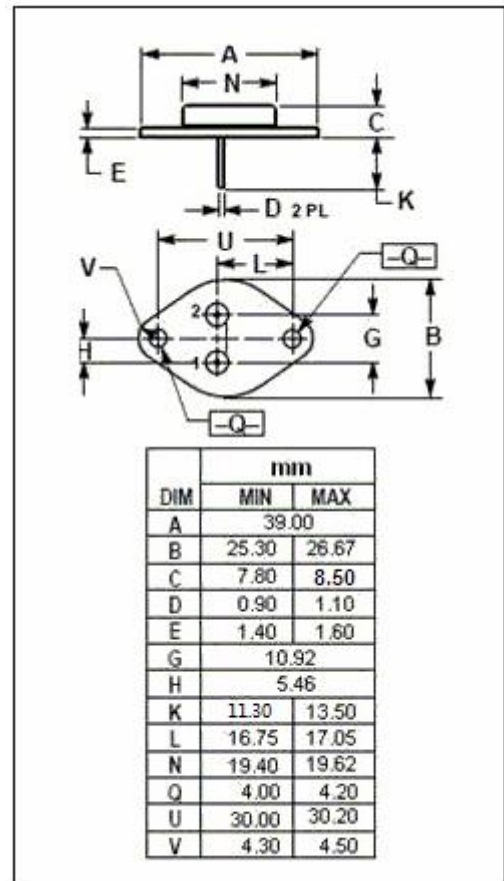
- High Collector-Base Breakdown Voltage-  
:  $V_{(BR)CBO} = 1000V$  (Min)
- High Current Capability
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for TV horizontal output and high power switching applications.


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

SYMBOL	PARAMETER	MAX	UNIT
$V_{CBO}$	Collector-Base Voltage	1000	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current-Continuous	12	A
$I_{CM}$	Collector Current-Peak	15	A
$P_C$	Collector Power Dissipation @ $T_c=25^{\circ}C$	50	W
$T_j$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}C$



## 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	$I_C= 50\text{mA}; I_B= 0$	400			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C= 1\text{mA}; I_E= 0$	1000			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 10\text{mA}; I_C= 0$	8			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 8\text{A}; I_B= 2.5\text{A}$			3.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 8\text{A}; I_B= 2.5\text{A}$			2.2	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 1000\text{V}; I_E= 0$			1.0	mA
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A}; V_{CE}= 10\text{V}$		6		MHz
$C_{OB}$	Output Capacitance	$I_E= 0; V_{CB}= 20\text{V}; f_{test}= 1.0\text{MHz}$		125		pF
$t_f$	Fall Time	$I_C= 8\text{A}; I_{B1}= -I_{B2}= 2.5\text{A}$			1.0	$\mu\text{s}$

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