

## isc Silicon NPN Power Transistor

2SD237

## DESCRIPTION

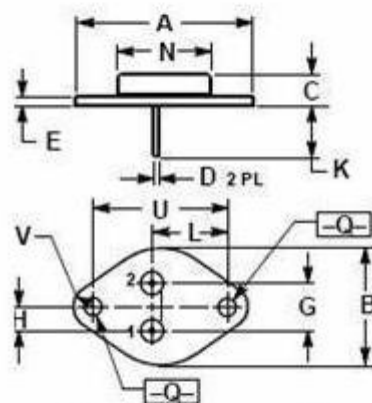
- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

## APPLICATIONS

- Designed for general-purpose power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{CEO}$	Collector-Emitter Voltage	80	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current-Continuous	1.5	A
$I_{CM}$	Collector Current-Peak	2	A
$P_C$	Collector Power Dissipation@ $T_C=25^{\circ}\text{C}$	15	W
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^{\circ}\text{C}$



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.90
C	6.70	7.10
D	0.70	0.90
E	1.40	1.80
G	5.08	
H	2.54	
K	9.80	10.50
L	14.70	14.90
N	12.40	12.70
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

**isc Silicon NPN Power Transistor****2SD237****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}^*$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	80		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	8		V
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$		0.1	mA
$I_{CBO}$	Collector Base Cutoff Current	$V_{CB}=80\text{V}; I_E=0$		0.1	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.1\text{A}$		0.7	V
$V_{BE(ON)}$	Base-Emitter On Voltage	$I_C=1\text{A}; V_{CE}=4\text{V}$		1.4	V
$h_{FE-1}^*$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=4\text{V}$	60	200	
$h_{FE-2}^*$	DC Current Gain	$I_C=1\text{A}; V_{CE}=4\text{V}$	20		

\*:Pulse test:Pulse width=300us,duty cycle≤2%

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