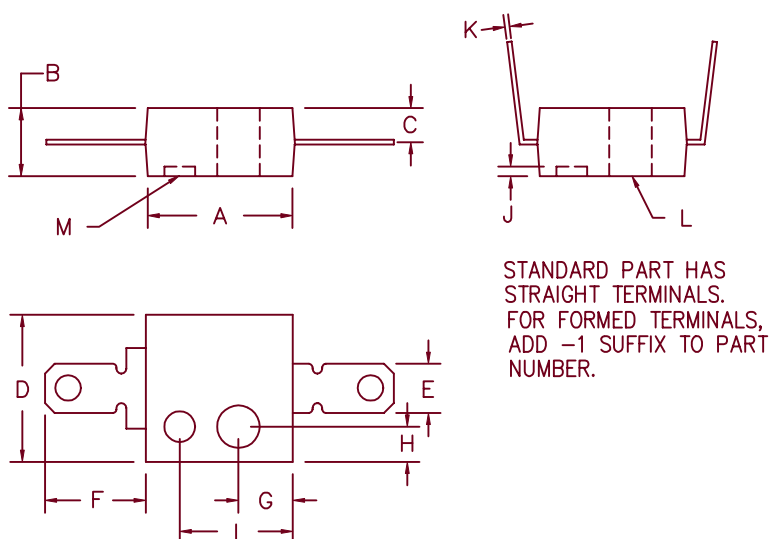


# Quick Connect Controlled Avalanche Rectifier KP247 — KP647



STANDARD PART HAS STRAIGHT TERMINALS. FOR FORMED TERMINALS, ADD -1 SUFFIX TO PART NUMBER.

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.615	.635	15.62	16.13	
B	.275	.285	6.99	7.24	
C	.137	.143	3.48	3.63	
D	.615	.635	15.62	16.13	
E	.245	.255	6.22	6.48	
F	.490	.510	12.45	12.95	
G	.245	.255	6.22	6.48	
H	.157	.167	3.99	4.24	
I	.455	.465	11.56	11.81	
J	.057	.067	1.45	1.70	
K	.028	.032	0.71	0.81	
L		.169		4.29	Dia.
M		.125		3.18	Dia.

Microsemi Catalog  
Number

KP247  
KP447  
KP457  
KP647

Avalanche  
Voltage Range

250V — 700V  
450V — 900V  
430V — 1270V  
650V — 1100V

- Rugged Construction
- Glass Passivated Die
- Convenient Mounting
- Quick Connect 1/4" Tabs

## Electrical Characteristics

Average Forward Current	$I_{F(AV)}$ 5 Amps	$T_A = 40^\circ\text{C}$ , Natural Convection
Average Forward Current	$I_{F(AV)}$ 8 Amps	$T_A = 40^\circ\text{C}$ , 200 LFM Forced Air Convection
Maximum Surge Current	$I_{FSM}$ 225 Amps	8.3ms, half sine
Max. $I^2t$ For Fusing	$I^2t$ 210 $\text{A}^2\text{s}$	
Max. Peak Forward Voltage	$V_{FM}$ 1.0 Volts	$I_{FM} = 6.0\text{A}$ , $T_J = 25^\circ\text{C}^*$
Max. Peak Reverse Current	$I_{RM}$ 5 $\mu\text{A}$	$V_{RRM}$ , $T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$  Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $150^\circ\text{C}$
Weight		.15 ounces (4.8 grams) typical

# KP247 — KP647

Figure 1  
Typical Forward Characteristics

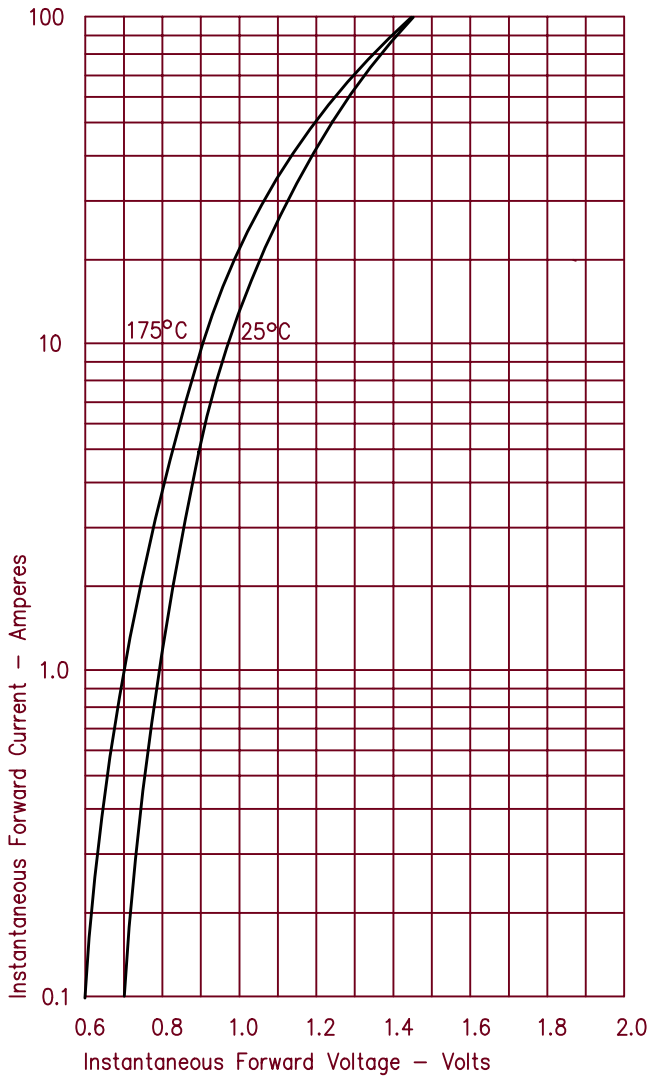


Figure 3  
Forward Current Derating

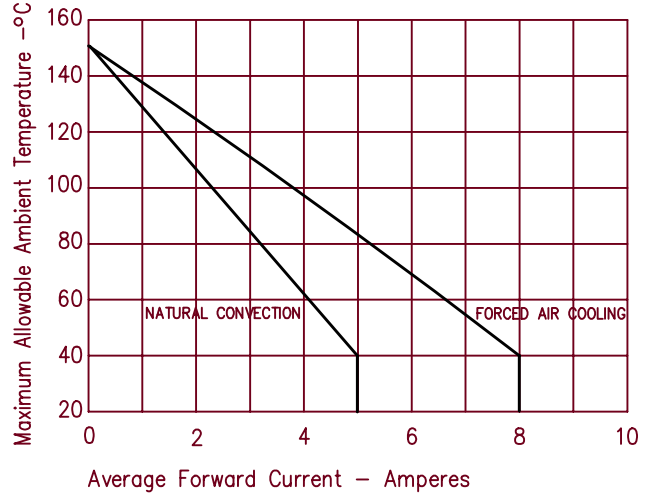


Figure 2  
Typical Reverse Characteristics

