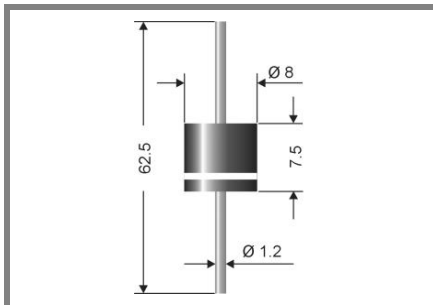


# HE12F 120



## Axial lead diode

### High efficiency fast silicon rectifier diode

#### HE12F 120

**Forward Current: 12 A**

**Reverse Voltage: 120 to 120 V**

#### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

#### Mechanical Data

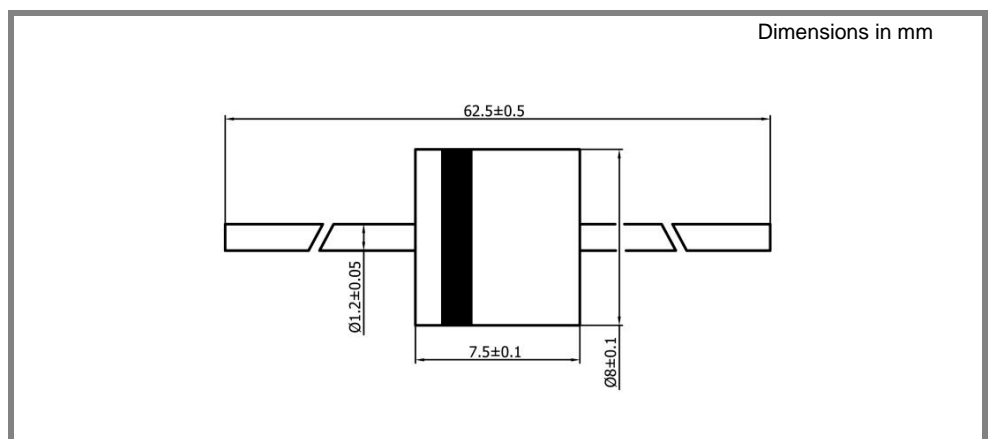
- Plastic case 8 x 7,5 [mm] / P-600 Style
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo

- 1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case
- 2)  $I_F = 5 \text{ A}$ ,  $T_j = 25 \text{ °C}$
- 3)  $T_A = 25 \text{ °C}$
- 4) Peak pulse power dissipation (10/1000  $\mu\text{s}$  waveform)  $T_A = 25 \text{ °C}$   $P_{PPM} = 3000 \text{ W}$
- 5) Maximum admissible pulse current in reverse direction (10/1000  $\mu\text{s}$  waveform)  $I_{PPM} = 20 \text{ A}$

Type	Repetitive peak reverse voltage	Surge peak reverse voltage	Max. reverse recovery time	Max. forward voltage
HE12F120	$V_{RRM}$ V 120	$V_{RSM}$ V 120	$I_F = 0,5 \text{ A}$ $I_R = 1 \text{ A}$ $I_{RR} = 0,25 \text{ A}$ $t_{rr}$ ns 300	$V_F^{(2)}$ 0,82

Absolute Maximum Ratings		$T_A = 25 \text{ °C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 45 \text{ °C}^{(1)}$	12	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}^{(1)}$	80	A
$I_{FSM}$	Peak forward surge current Hz half sinus-wave $^{(3)}$	350	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}^{(3)}$	680	$\text{A}^2\text{s}$
$R_{thA}$	Max. thermal resistance junction to ambient $^{(1)}$	20	K/W
$R_{thT}$	Max. thermal resistance junction to terminals $^{(1)}$	-	K/W
$T_j$	Operating junction temperature	-50...+175	°C
$T_s$	Storage temperature	-50...+175	°C

Characteristics		$T_A = 25 \text{ °C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25 \text{ °C}$ ; $V_R = V_{RRM}$	<5	$\mu\text{A}$
	$T_j = \text{°C}$ ; $V_R = V_{RRM}$		
$C_j$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/\text{ms}$ )	-	$\mu\text{C}$
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = \text{mA}$ ; $T_j = \text{°C}$ ; inductive load switched off)	-	mJ



case: 8 x 7,5 [mm]

