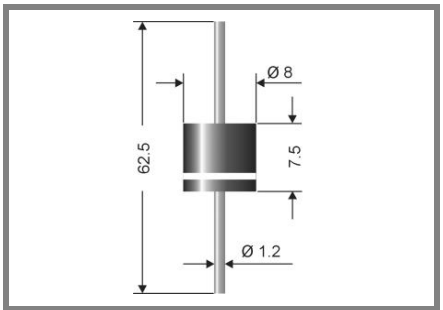
HE12F120



Axial lead diode

High efficiency fast silicon rectifier diode

HE12F120

Forward Current: 12 A

Reverse Voltage: 120 to 120 V

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

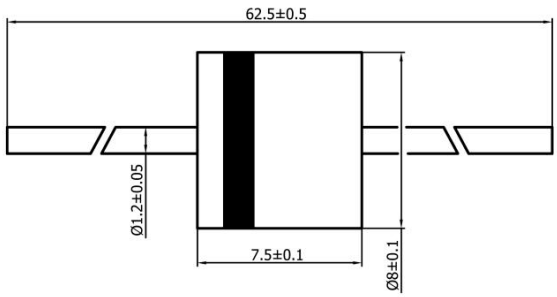
Absolute Maximum Ratings Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 45 °C [1]	12	A
I_{FRM}	Repetitive peak forward current f > 15 Hz [1]	80	A
I_{FSM}	Peak forward surge current Hz half sinus-wave [3]	350	A
i²t	Rating for fusing, t < 10 ms [3]	680	A²s
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 Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, T_j = 25 °C; V_R = V_{RRM}	<5	µA
	T_j = °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/ms)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy (I_R = mA; T_j = °C; inductive load switched off)	-	mJ

Dimensions in mm



case: 8 x 7,5 [mm]

Features

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

Mechanical Data

- Plastic case 8 x 7,5 [mm]
- 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 A, T_j = 25 °C
3) T_A = 25 °C
4) Peak pulse power dissipation (10/1000 µs waveform) T_A = 25°C P_{PPM} = 3000 W
5) Maximum admissible pulse current in reverse direction (10/1000 µs waveform) I_{PPM} = 20 A

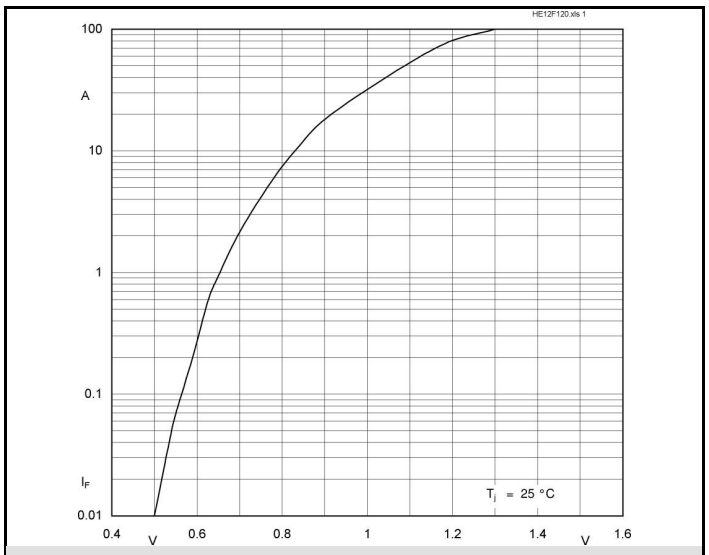


Fig. 1 Forward characteristic (typical values)

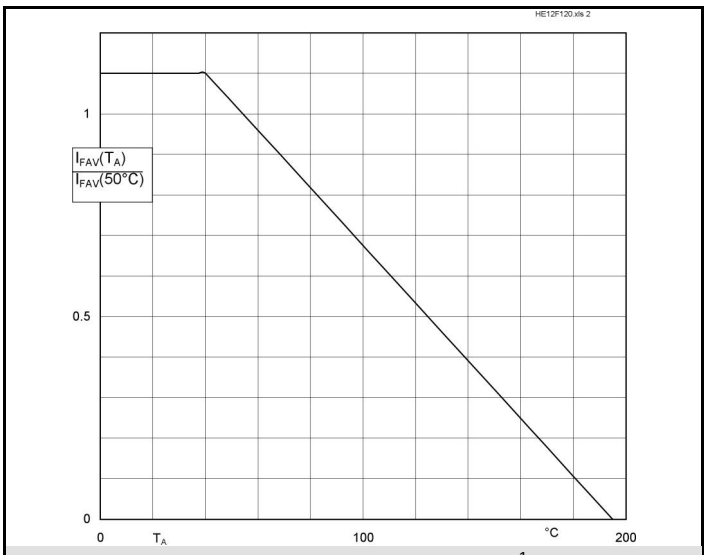


Fig. 2 Rated forward current vs. ambient temperature [1])