



## Axial lead diode

**High efficiency silicon rectifier diode**

**HE7A5**

**Forward Current: 7,5 A**

**Reverse Voltage: 50 to 50 V**

## Features

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

## Mechanical Data

- Plastic case 5,4 x 7,5 [mm]
- Weight approx.: 1,4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 1250 pieces per ammo

1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

2)  $I_F = 5 \text{ A}$ ;  $T_j = 25 \text{ }^\circ\text{C}$

3)  $T_A = 25 \text{ }^\circ\text{C}$

Type	Repetitive peak reverse voltage $V_{RRM}$ V	Surge peak reverse voltage $V_{RSM}$ V	Max. reverse recovery time $I_F = -A$ $I_R = -A$ $I_{RR} = -A$ $t_{rr}$ ns	Max. forward voltage $V_F^2)$
HE7A5	50	80	-	0,88

<b>Absolute Maximum Ratings</b>		$T_c = 25 \text{ }^\circ\text{C}$ , unless otherwise specified	
<b>Symbol</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 75 \text{ }^\circ\text{C}$ <sup>1)</sup>	7,5	A
$I_{FRM}$	Repetitive peak forward current $f > 15 \text{ Hz}$ <sup>1)</sup>	25	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	300	A
$i^2t$	Rating for fusing, $t < 10 \text{ ms}$ <sup>3)</sup>	450	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>1)</sup>	60	K/W
$R_{thT}$	Max. thermal resistance junction to terminals <sup>1)</sup>	-	K/W
$T_j$	Operating junction temperature	-55...+150	$^\circ\text{C}$
$T_s$	Storage temperature	-55...+150	$^\circ\text{C}$

<b>Characteristics</b>		$T_c = 25 \text{ }^\circ\text{C}$ , unless otherwise specified	
<b>Symbol</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
$I_R$	Maximum leakage current, $T_j = 25 \text{ }^\circ\text{C}$ ; $V_R = V_{RRM}$	<10	$\mu\text{A}$
	$T_j = ^\circ\text{C}$ ; $V_R = V_{RRM}$		
$C_J$	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 ( $I_R = \text{mA}$ ; $T_j = ^\circ\text{C}$ ; inductive load switched off)	-	mJ



