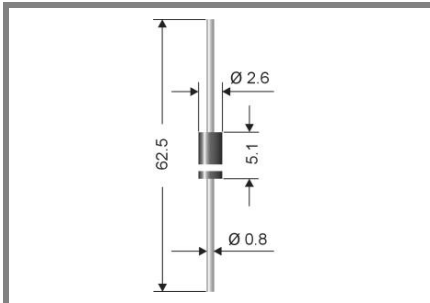


# EM 513, EM 516, EM 518



## Axial lead diode

### Standard silicon rectifier diodes

EM 513, EM 516, EM 518

Forward Current: 1 A

Reverse Voltage: 1600 to 2000 V

### Features

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

### Mechanical Data

- Plastic case DO-41 / DO-204AL
- Weight approx.: 0.4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per ammo

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

2)  $I_F = 1A$ ,  $T_j = 25^\circ C$

3)  $T_A = 25^\circ C$

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 $V_F^{2)}$
EM 513	1600	1600	-	1,1
EM 516	1800	1800	-	1,1
EM 518	2000	2000	-	1,1

Absolute Maximum Ratings		$T_c = 25^\circ C$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 75^\circ C$ <sup>1)</sup>	1	A
$I_{FRM}$	Repetitive peak forward current $f > 15 Hz$ <sup>1)</sup>	10	A
$I_{FSM}$	Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>	50	A
$i^2t$	Rating for fusing, $t < 10 ms$ <sup>3)</sup>	12,5	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>1)</sup>	45	K/W
$R_{thT}$	Max. thermal resistance junction to terminals <sup>1)</sup>	-	K/W
$T_j$	Operating junction temperature	-50...+175	°C
$T_s$	Storage temperature	-50...+175	°C

Characteristics		$T_c = 25^\circ C$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25^\circ C$ ; $V_R = V_{RRM}$	<5	$\mu A$
	$T_j = 100^\circ C$ ; $V_R = V_{RRM}$	<50	$\mu A$
$C_j$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/ms$ )	-	$\mu C$
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = mA$ ; $T_j = ^\circ C$ ; inductive load switched off)	-	mJ

