



1.0A Surface Mount Rectifier

Features

1. High current capability
2. Low reverse leakage current
3. Low forward voltage drop
4. Plastic material – UL recognition flammability classification 94V – 0
5. For surface mounted applications



Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage = Working peak reverse voltage = DC blocking voltage		M1	V_{RRM}	50	V
		M2	$=V_{RWM}$	100	V
		M3	$=V_R$	200	V
		M4		400	V
		M5		600	V
		M6		800	V
		M7		1000	V
Peak forward surge current			I_{FSM}	30	A
Average forward current	$T_A=75^{\circ}\text{C}$		I_{FAV}	1	A
Storage temperature range			T_{stg}	-65~+175	$^{\circ}\text{C}$

Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{A}$		V_F			1	V
Reverse current	$T_A=25^{\circ}\text{C}$		I_R			5	μA
	$T_A=100^{\circ}\text{C}$		I_R			50	μA
Diode capacitance	$V_R=4\text{V}, f=1\text{MHz}$		C_D		15		pF

Excel Semiconductor



Characteristics ($T_j=25^\circ\text{C}$ unless otherwise specified)

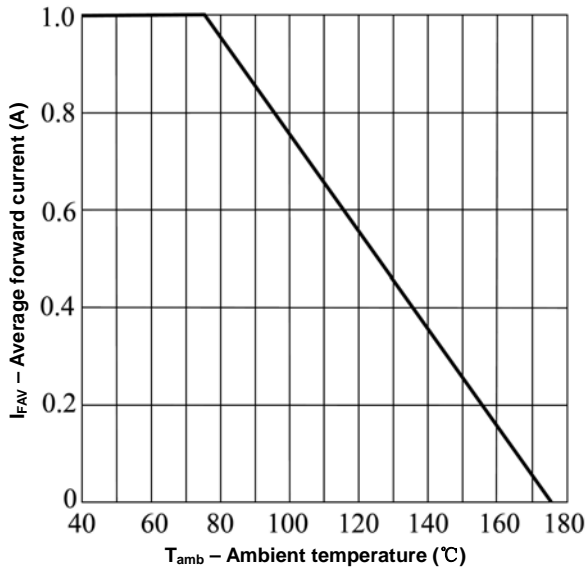


Figure 1. Max. Average forward current vs. ambient temperature

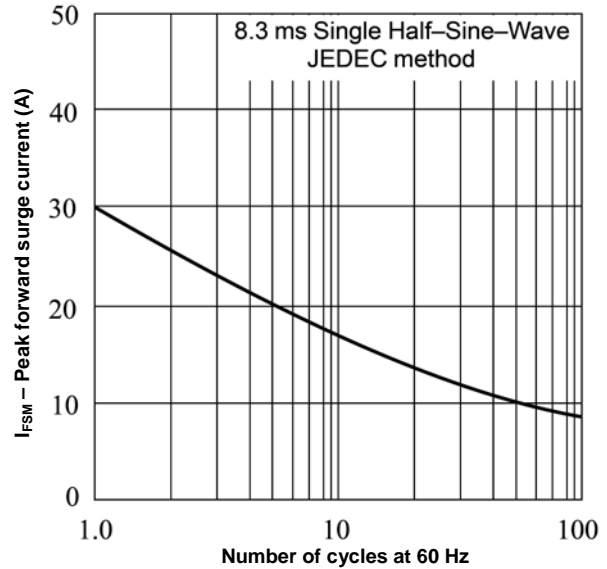


Figure 2. Max. Peak forward surge current vs. Number of cycles

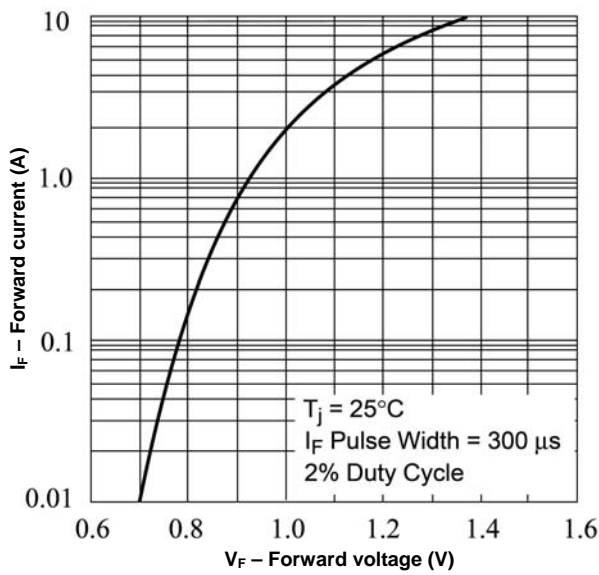


Figure 3. Typ. forward current vs. forward voltage

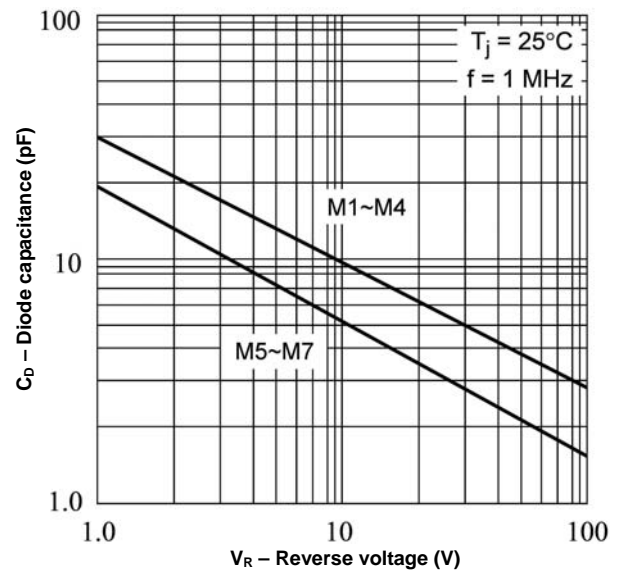
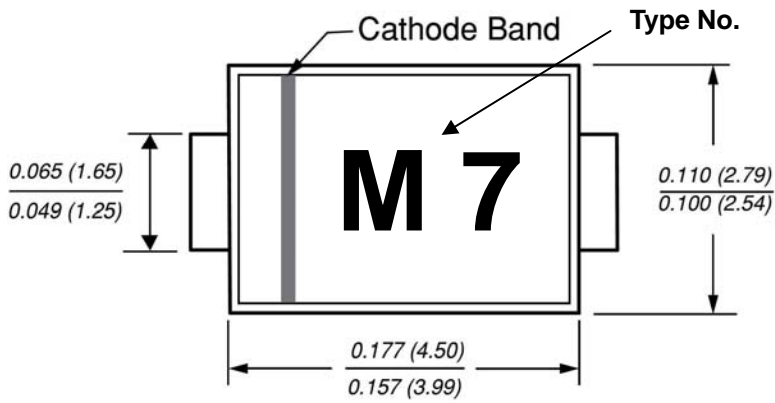


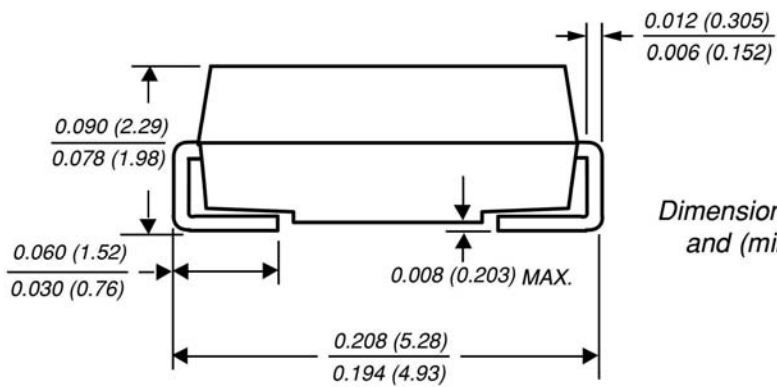
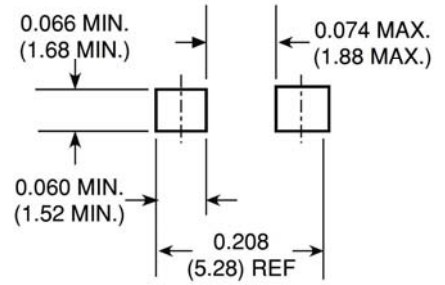
Figure 4. Typ. diode capacitance vs. reverse voltage



Dimensions in inches (mm)



Mounting Pad Layout



Dimensions in inches and (millimeters)

DO-214AC (SMA)