

VOLTAGE RANGE: 90V

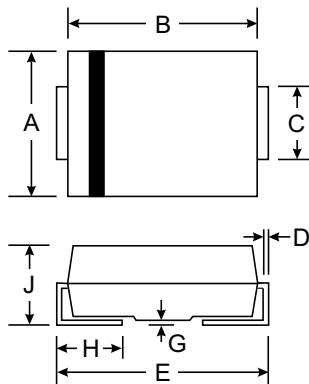
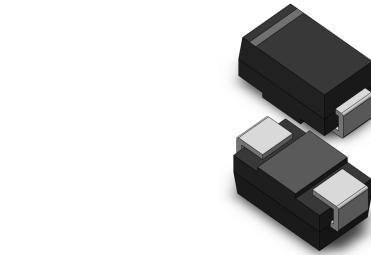
CURRENT: 1.5 A

Features

- High efficiency
- Low power losses
- Very low switching losses
- Low reverse current
- High surge capability

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62

All Dimensions in mm

Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage=			$V_R =$		
Repetitive peak reverse voltage			V_{RRM}	90	V
Peak forward surge current	$t_p=10\text{ms}$, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1.5	A
Junction and storage temperature range			$T_j=T_{stg}$	-55...+150	°C

Maximum Thermal Resistance $T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	$T_L=\text{constant}$	R_{thJL}	25	K/W
Junction ambient	mounted on epoxy-glass hard tissue		150	
	mounted on epoxy-glass hard tissue, 50mm^2 $35\mu\text{m}$ Cu	R_{thJA}	125	
	mounted on Al-oxid-ceramic (Al_2O_3), 50mm^2 $35\mu\text{m}$ Cu		100	

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			750	mV
	$I_F=15\text{mA}$					360	
Reverse current	$V_R=V_{RRM}$		I_R			100	μA
	$V_R=V_{RRM}$, $T_j=100^\circ\text{C}$					1	



SUNMATE

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

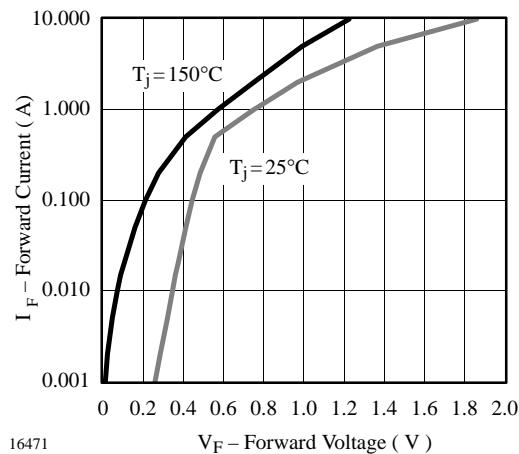


Figure 1. Forward Current vs. Forward Voltage

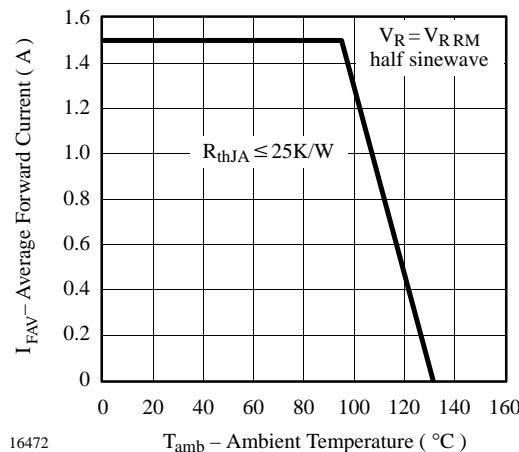


Figure 2. Max. Average Forward Current vs. Ambient Temperature

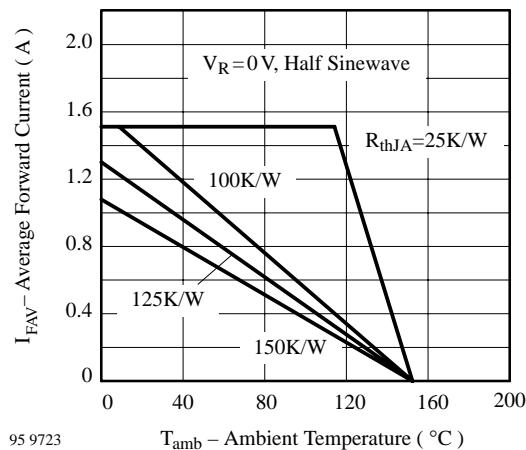


Figure 3. Max. Average Forward Current vs. Ambient Temperature

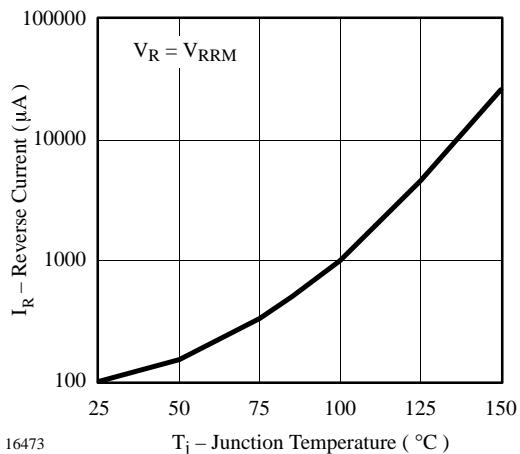


Figure 4. Reverse Current vs. Junction Temperature

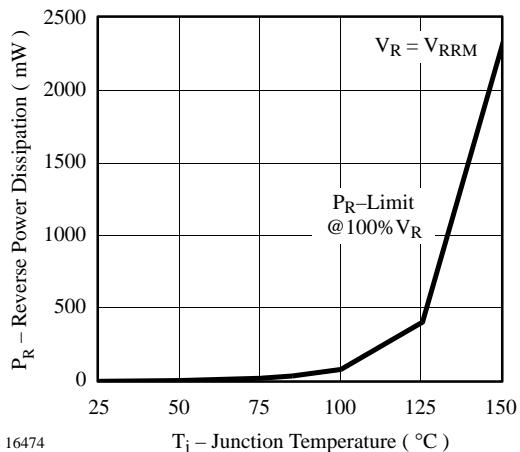


Figure 5. Max. Reverse Power Dissipation vs. Junction Temperature

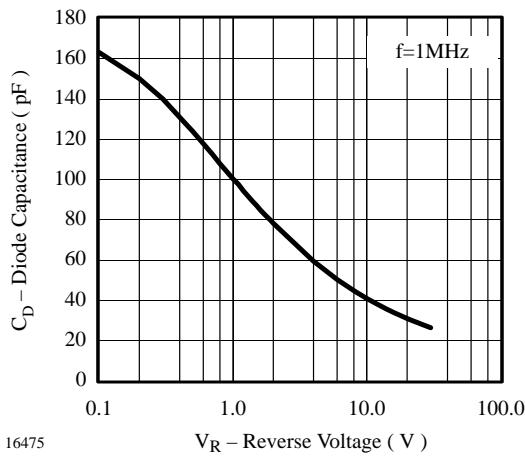


Figure 6. Diode Capacitance vs. Reverse Voltage