

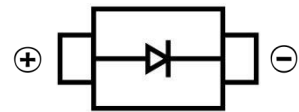
GENERAL PURPOSE RECTIFIER DIODE

FEATURES

- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Glass passivated junction
- Surface mount device



SMA



MECHANICAL DATA

- Case: SMA(DO-214AC)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.065 grams (approximate)

MAXIMUM RATINGS AND CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
DC Blocking Reverse Voltage	V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current	I_F	1							A
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	30							A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	30							$^\circ\text{C/W}$
Reverse Recovery Time (@ $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$)	t_{rr}	2							μS
Operating and Storage Temperature	T_J, T_{STG}	-55 ~ +150							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			1.1	V	$I_F=1\text{A}$
Reverse current	I_R			5	μA	$V=V_R$
Diode capacitance	C_D		10		pF	$V_R=4\text{V}, f=1\text{MHz}$

GENERAL PURPOSE RECTIFIER DIODE

Typical Characteristics

Fig.1 Forward Current Derating Curve

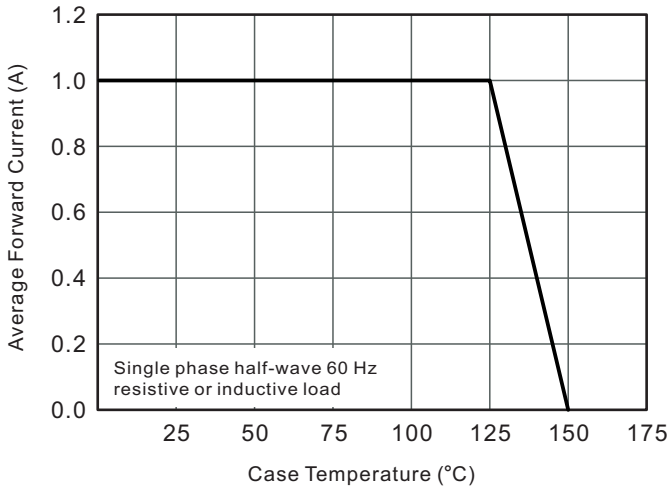


Fig.2 Typical Reverse Characteristics

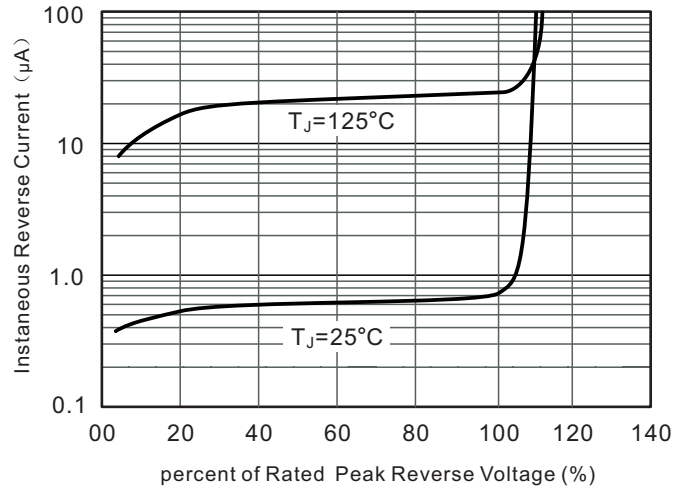


Fig.3 Typical Forward Characteristic

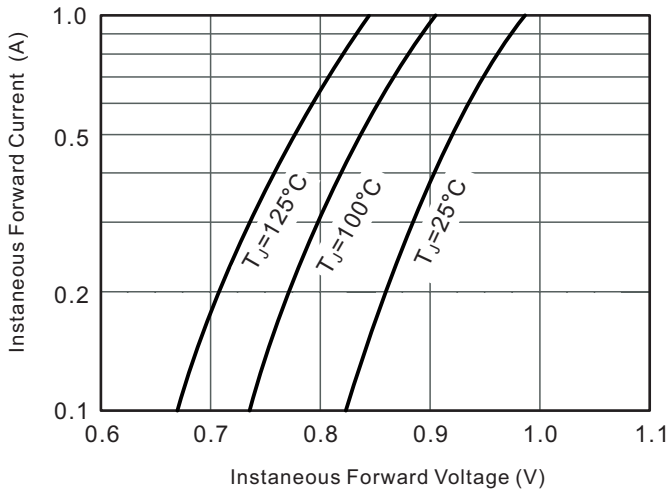


Fig.4 Typical Junction Capacitance

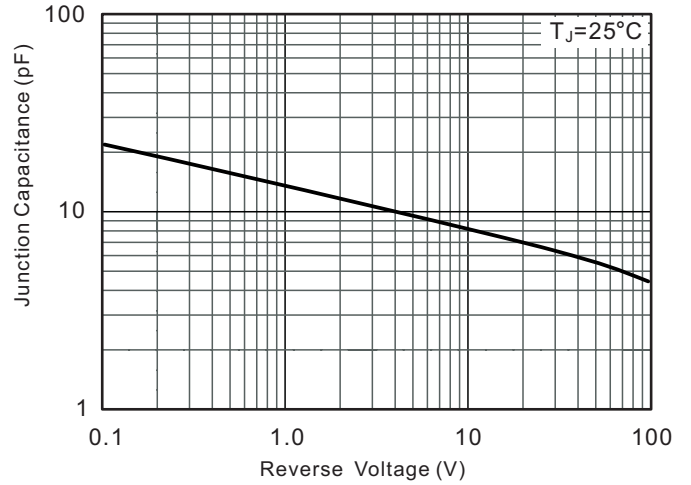
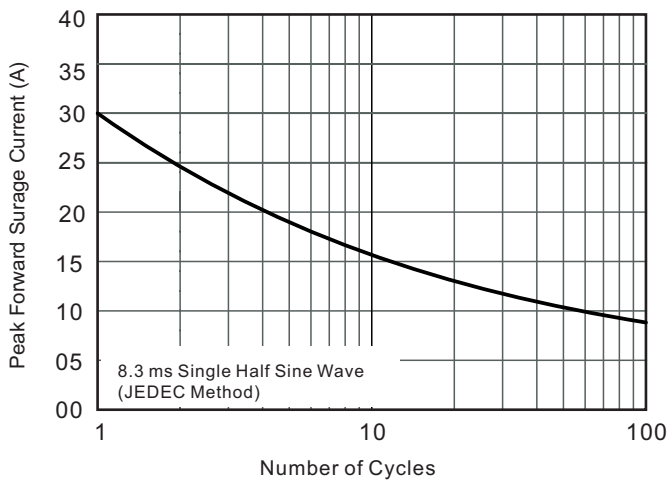
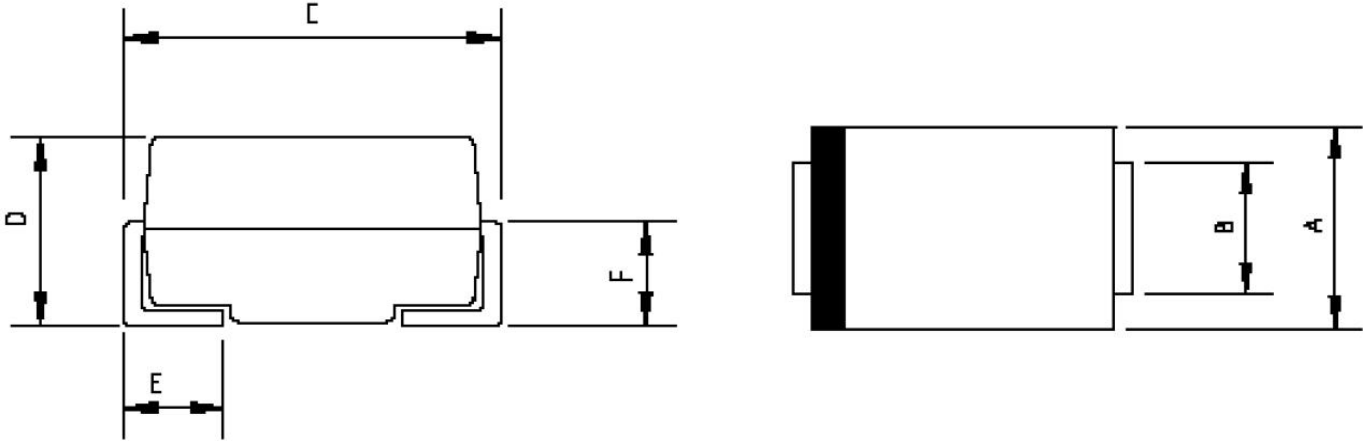


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



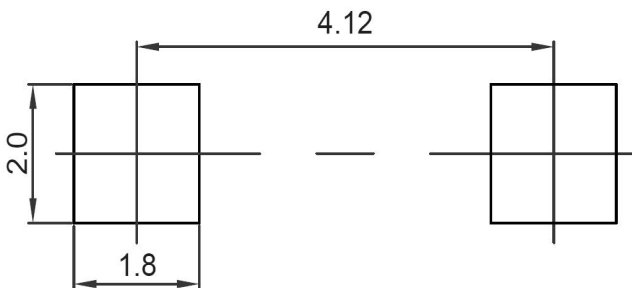
GENERAL PURPOSE RECTIFIER DIODE

SMA Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059

SMA Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

GENERAL PURPOSE RECTIFIER DIODE

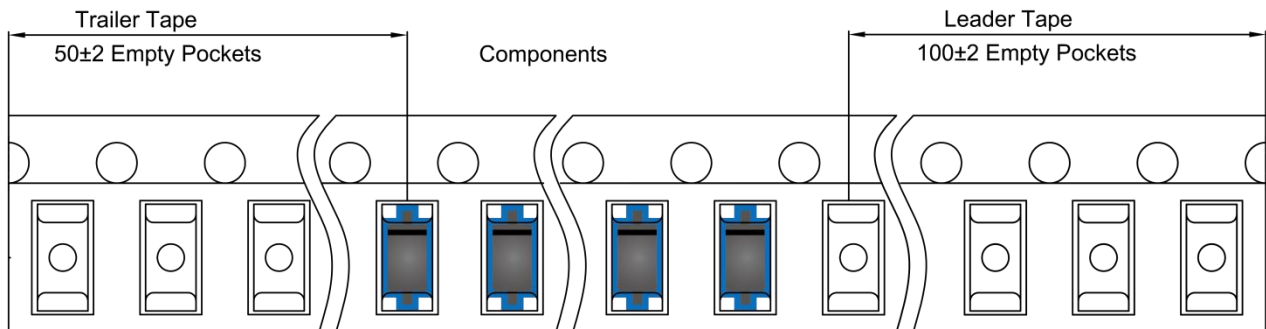
SMA Tape and Reel

SMA Embossed Carrier Tape

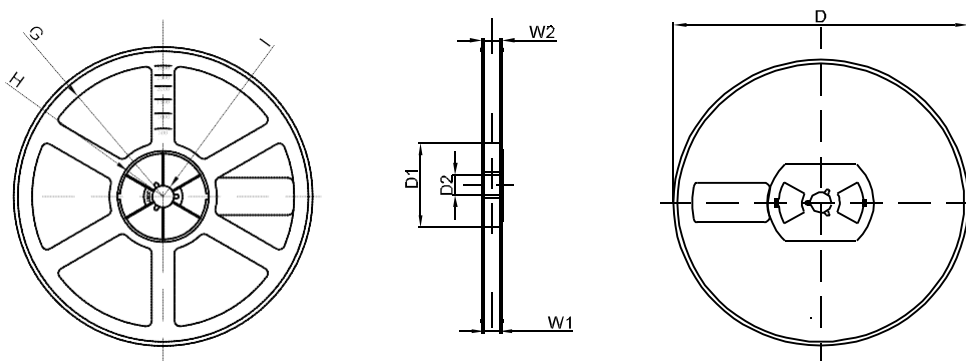


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMA Tape Leader and Trailer



SMA Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1