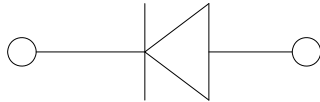
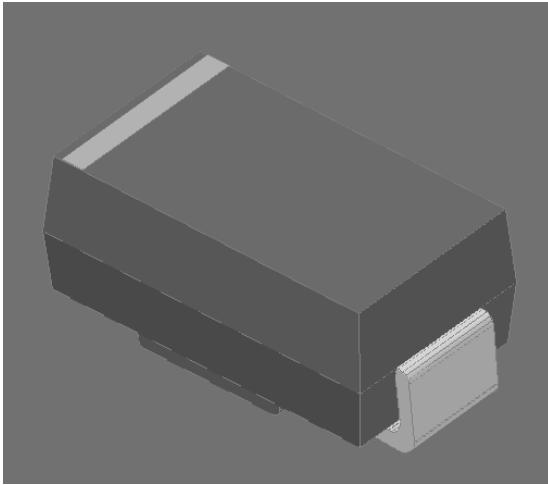


Surface Mount General Purpose Rectifier



Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication.

Mechanical Data

- **Package:** DO-214AC (SMA)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	S1A	S1B	S1D	S1G	S1J	S1K	S1M
Device marking code			S1A	S1B	S1D	S1G	S1J	S1K	S1M
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	IO	A		1.0					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25	IFSM	A		30					
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25				60					
Current squared time @1ms≤t≤8.3ms Tj=25	I ² t	A ² s		3.735					
Storage temperature	Tstg			-55 ~ +150					
Junction temperature	Tj			-55 ~ +150					

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS
Reverse Leakage Current	I _R	μA	V _R = 50V, T _j = 25°C
Forward Voltage Drop	V _F	V	I _F = 1.0A, T _j = 25°C
Dynamic Resistance	r _d	Ω	I _F = 1.0A, T _j = 25°C
Reverse Recovery Time	t _{rr}	ns	V _R = 50V, I _F = 1.0A, T _j = 25°C

Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	7
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S1A THRU S1M

■ Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	S1A	S1B	S1D	S1G	S1J	S1K	S1M
Typical Thermal Resistance	$R_{\theta J-A(1)}$	/W	70						
	$R_{\theta J-A(1)}$		22						
	$R_{\theta J-L(1)}$		20						

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper per



■ Outline Dimensions

DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.00	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41

ΩSuggested Pad Layout



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