

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High current capability
- Smoothly soft reverse recovery time (trr)
- Low reverse leakage
- Low profile surface mounted package
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



MECHANICAL DATA

- Case: JEDEC SMA (DO-214AC) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram

TYPICAL APPLICATIONS

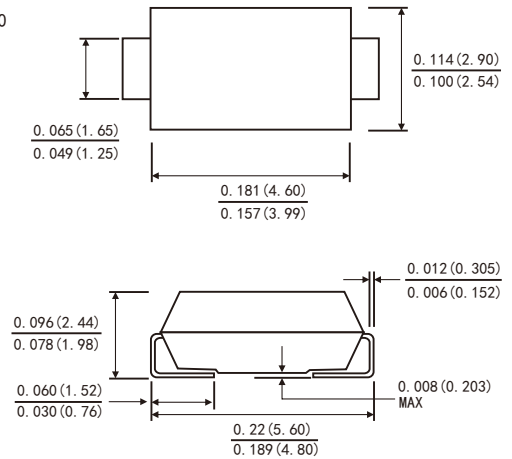
For suitable use in snubber damping circuit (RCD) in the primary of SMPS

MAXIMUM RATINGS

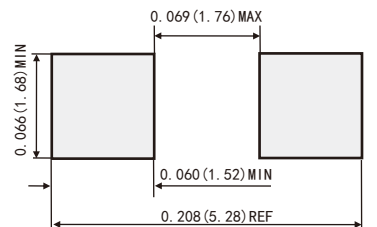
(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	800	V
Maximum average forward rectified current	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	10	A
Operating junction temperature range	T_J	-55 to+150	°C
Storage temperature range	T_{stg}	-55 to+150	°C

SMA (DO-214AC)



Suggested PAD Layout



Dimensions in inches and (millimeters)

RATINGS AND CHARACTERISTIC OF SD2J

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V _R ¹⁾	I _R =50μA	800	-	-	V
Forward Voltage	V _{F1} ²⁾	I _F =100mA	-	-	0.95	V
	V _{F2} ²⁾	I _F =500mA	-	-	1.20	
	V _{F3} ²⁾	I _F =1000mA	-	-	1.60	
	V _{F4} ²⁾	I _F =2000mA	-	-	2.00	
Reverse current	I _R ¹⁾	V _R =560V	-	0.1	0.5	μA
	I _R ¹⁾	V _R =560V, T _J =125°C	-	-	10	μA
Typical Reverse Recovery Time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	-	-	3000	ns
Typical Junction Capacitance	C _J	V _R =1V, f=1MHz	-	-	11.6	pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SMA	Unit
Typical thermal resistance ³⁾	R _{θJA}	88.0	°C/W
	R _{θJL}	28.0	

3. P. C. B. mounted with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)
SD2J-SMA	T/R	φ330	7500	330×35×333	2	364×364×360	8

RATINGS AND CHARACTERISTIC OF SD2J

FIG. 1-FORWARD CURRENT DERATING CURVE

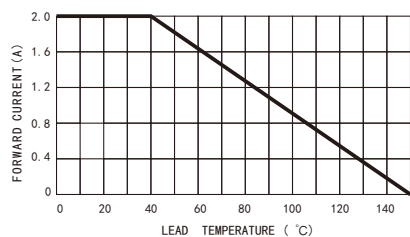


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

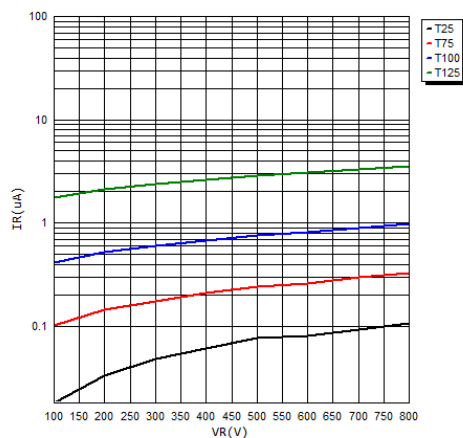


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

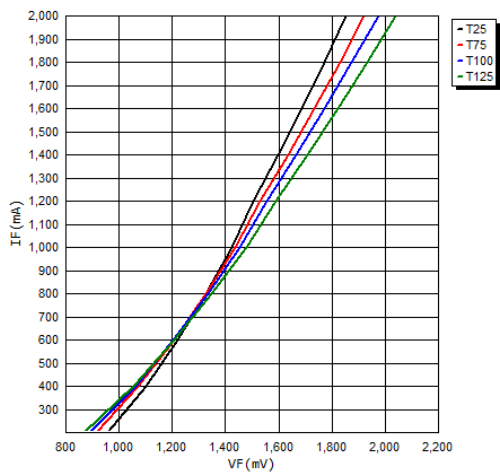


FIG. 5-TYPICAL JUNCTION CAPACITANCE

