Schottky Diodes

1KK2502AF ~ 1KK2520AF

■ Features

- Reverse Voltage - 20 to 200V
- Forward Current - 5.0A
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

SMAF

Top View
Simplified outline SMAF and symbol

PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

■ Absolute Maximum Ratings and Electrical characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbol	1KK2 502AF	1KK2 504AF	1KK2 506AF	1KK2 508AF	1KK2 510AF	1KK2 512AF	1KK2 515AF	1KK2 520AF	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	120								
Max Instantaneous Forward Voltage at 5 A	V_F	0.55		0.7		0.85				V
Maximum DC Reverse Current at rated DC blocking voltage T_a = 25℃	I_R	1.0								mA
T_a = 100℃		50								
Typical Junction Capacitance *1	C_j	500		300						pF
Typical thermal resistance *2	R_{thJA}	60								℃/W
Junction Temperature	T_j	150								℃
Storage Temperature	T_{stg}	-55 to 150								

* 1 Measured at 1MHz and applied reverse voltage of 4 V D.C

* 2 P.C.B. mounted with 2″ × 2″ (5×5 cm) copper pad areas.

■ Marking

NO.	1KK2502AF	1KK2504AF	1KK2506AF	1KK2508AF	1KK2510AF	1KK2512AF	1KK2515AF	1KK2520AF
Marking	5A02	5A04	5A06	5A08	5A10	5A12	5A15	5A20

Schottky Diodes

1KK2502AF ~ 1KK2520AF

■ Typical Characterisitics

Fig.1 Forward Current Derating Curve

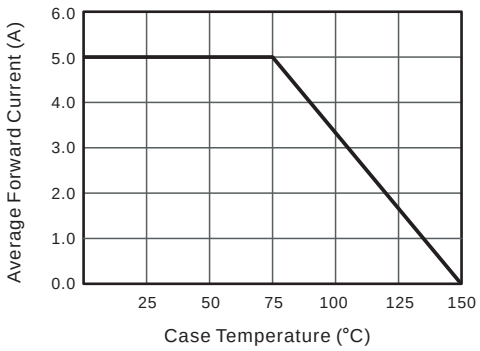


Fig.2 Typical Reverse Characteristics

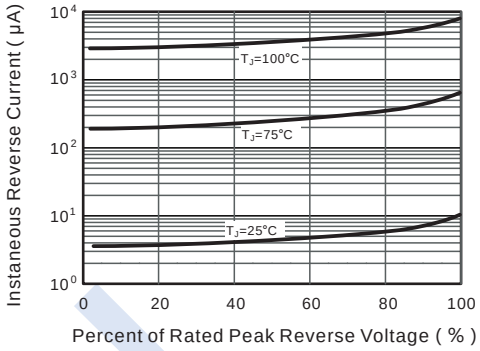


Fig.3 Typical Forward Characteristic

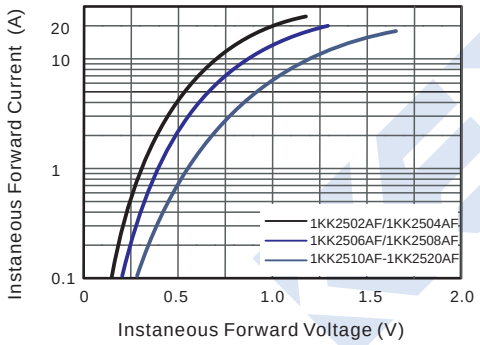


Fig.4 Typical Junction Capacitance

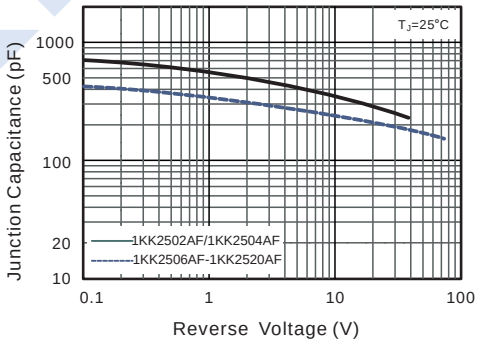


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

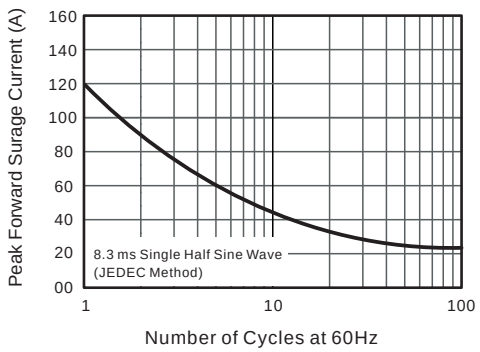
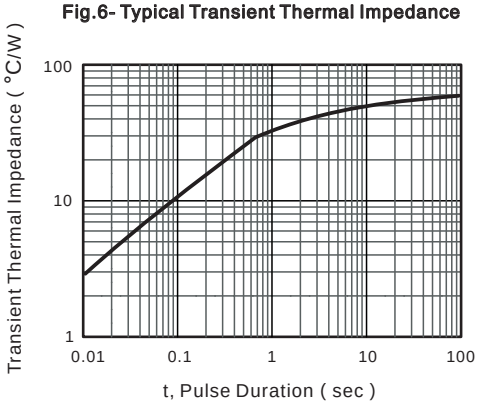


Fig.6- Typical Transient Thermal Impedance

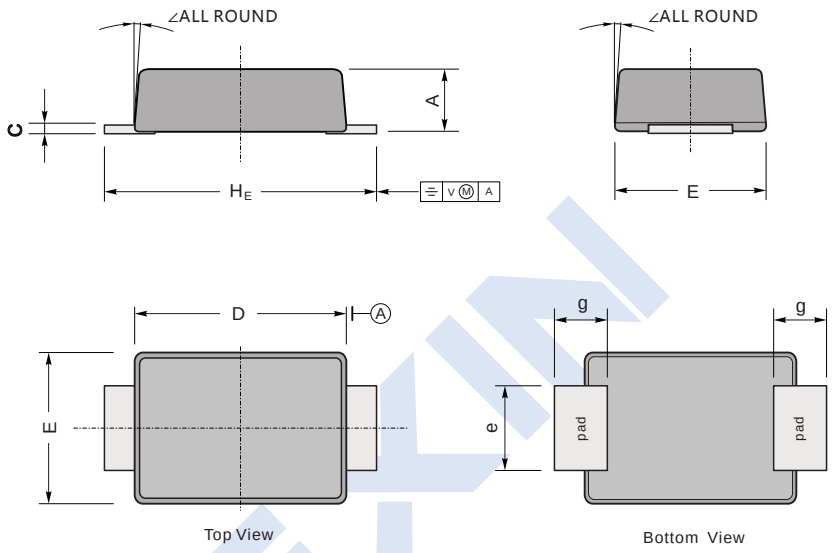


Schottky Diodes

1KK2502AF ~ 1KK2520AF

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads SMAF



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

■ The recommended mounting pad size