Surface Mount
Schottky Barrier rectifiers

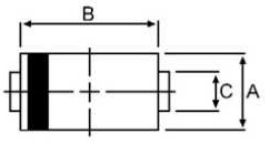
Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. proprietary barrier technology allows for reliable operation up to 150℃ junction temperature. Typical applications are in switching Mode Power Supplies such as adaptors, DC/DC converters free-wheeling and polarity protection diodes.

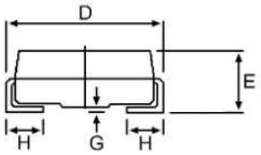
- ∗Low Forward Voltage.
- ∗Low Switching noise.
- ∗High Current Capacity
- ∗Guarantee Reverse Avalanche.
- ∗Guard-Ring for Stress Protection.
- ∗Low Power Loss & High efficiency.
- ∗High Operating Junction Temperature
- ∗Low Stored Charge Majority Carrier Conduction.
- ∗Plastic Material used Carries Underwriters Laboratory
- ∗Flammability Classification 94V-O
- ∗Pb Free
- ∗In compliance with EU RoHs directives

SCHOTTKY BARRIER RECTIFIERS

1.0 AMPERES
100 VOLTS

DO-214AC(SMA)





DIM	MILLIMETERS	
	MIN	MAX
A	2.20	2.80
B	3.90	4.50
C	1.30	1.70
D	4.70	5.30
E	1.90	2.50
G	--	0.22
H	0.75	1.55

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

MAXIMUM RATINGS

Characteristic	Symbol	SK110	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectifier Forward Current	I_O	1.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	25	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150	℃

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SK110	Unit
Maximum Instantaneous Forward Voltage (I_F =1 Amp)	V_F	0.85	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 100℃)	I_R	0.1 5	mA
Maximum Thermal Resistance Junction to case	$R_{\theta JC}$	65	℃/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	60	pF

FIG-1 FORWARD CURRENT DERATING CURVE

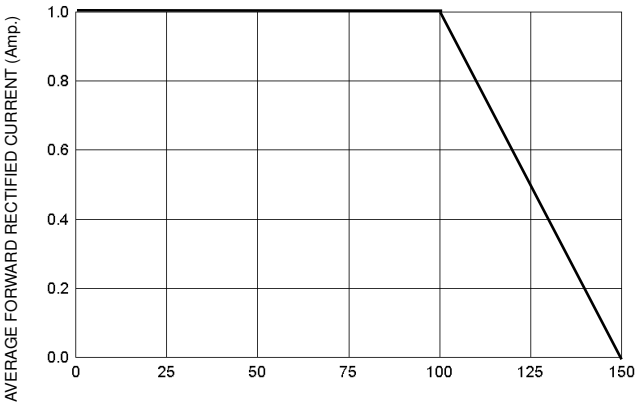


FIG-2 TYPICAL FORWARD CHARACTERISTICS

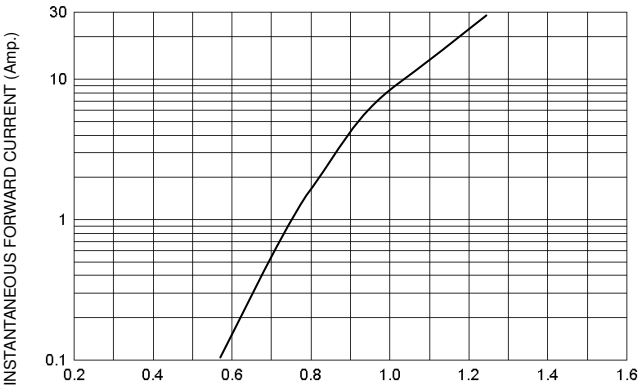


FIG-3 TYPICAL REVERSE CHARACTERISTICS

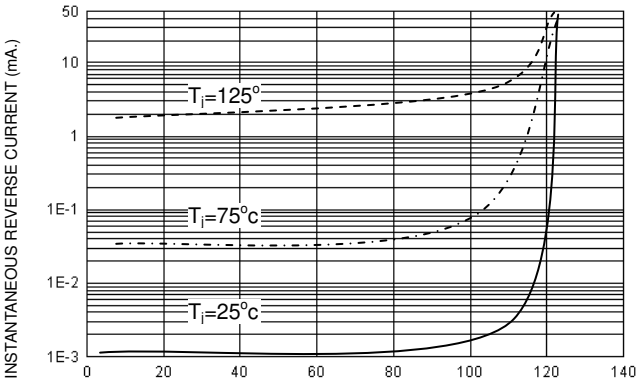


FIG-4 TYPICAL JUNCTION CAPACITANCE

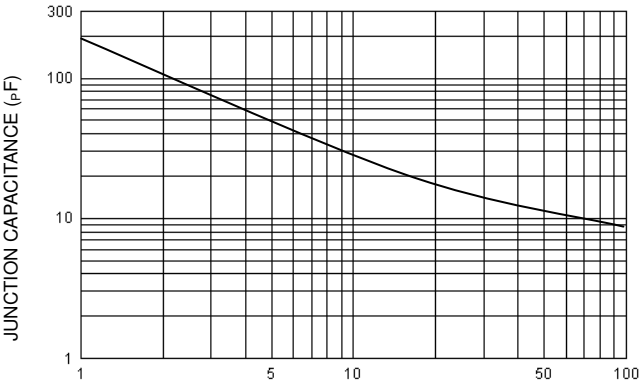
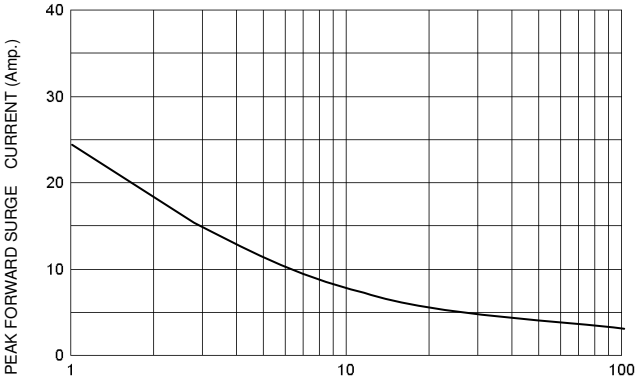
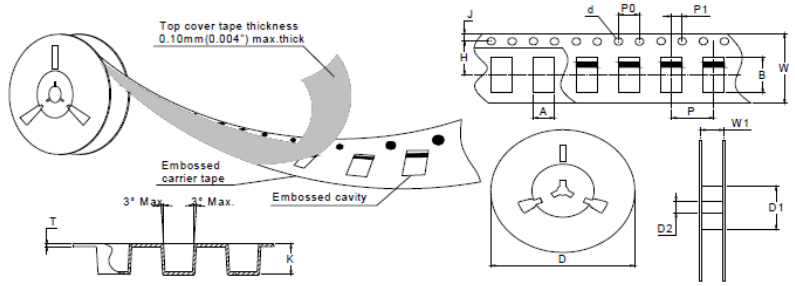


FIG-5 PEAK FORWARD SURGE CURRENT



REEL PACKING

OUTLINE	PACKING METHOD	PCS/REEL	PCS/BOX	PCS/CARTON	INNER BOX SIZE(MM)	CARTON SIZE (MM)	SINGLE BOX WEIGHT(KG)	GROSS WEIGHT (KG)
SMA(13")	Reel Packing(13")	5000	10000	80000	340*340*39.5	360*360*325	1.30	11.15
SMA(11")	Reel Packing(11")	5000	10000	100000	290*290*41.5	310*310*440	1.15	12.25
SMAF(11")	Reel Packing(11")	5000	10000	100000	290*290*41.5	310*310*440	0.80	8.75
SMAF(13")	Reel Packing(13")	10000	20000	160000	340*340*39.5	360*360*325	1.35	11.55
SMB	Reel Packing(13")	3000	6000	48000	340*340*39.5	360*360*325	1.25	10.75
SMC	Reel Packing(13")	3000	6000	42000	340*340*46.5	360*360*350	2.2	16.22
SMP	Reel Packing(13")	3000	6000	42000	340*340*46.5	360*360*350	2.26	16.64
ABS	Reel Packing(13")	5000	15000	75000	340*340*59	360*360*325	2.55	13.5
MBS	Reel Packing(13")	3000	9000	45000	340*340*59	360*360*325	2.00	10.75
MBF	Reel Packing(13")	5000	15000	75000	340*340*59	360*360*325	2.30	12.25
DFS	Reel Packing(13")	1500	4500	18000	340*340*70	360*360*325	2.50	10.75



ITEM	SYMBOL	SMA	SMB	SMC	SMP	SMAF	MBF	MBS	ABS	DFS
Carrier width	A	3.0Typ.	3.80Typ.	6.05Typ.	6.05Typ.	3.00Typ.	5.05Typ.	5.02Typ.	5.31Typ.	8.70Typ.
Carrier length	B	5.4Typ.	5.4Typ.	8.31Typ.	8.70Typ.	5.20Typ.	7.20Typ.	7.22Typ.	6.80Typ.	10.41Typ.
Sprocket hole	d	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.	ø1.55Typ.
Reel outer diameter	D	330.0/280Typ.	330Typ.	330Typ.	330Typ.	330Typ.	330Typ.	330Typ.	330Typ.	330Typ.
Reel inner diameter	D1	50.0Min	50.0Min	50.0Min	50.0Min	50.0Min	50.0Min	50.0Min	50.0Min	50.0Min
Feed hole diameter	D2	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.	13.0Typ.
Sprocket hole position	J	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.	1.75Typ.
Punch hole position	H	5.55Typ.	5.55Typ.	7.50Typ.	7.50Typ.	5.55Typ.	5.50Typ.	5.50Typ.	5.50Typ.	7.50Typ.
Carrier depth	K	2.45Typ.	2.45Typ.	2.54Typ.	2.54Typ.	1.20Typ.	1.60Typ.	3.60Typ.	1.59Typ.	2.60Typ.
Punch hole pitch	P	4.00Typ.	8.00Typ.	8.00Typ.	8.00Typ.	4.00Typ.	8.00Typ.	8.00Typ.	8.00Typ.	12.00Typ.
Sprocket hole pitch	P0	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.	4.00Typ.
Embossment center	P1	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.	2.00Typ.
Overall tape thickness	T	0.25 Typ.	0.25 Typ.	0.25Typ.	0.25Typ.	0.25Typ.	0.30Typ.	0.30Typ.	0.30Typ.	0.30Typ.
Tape width	W	12.0Typ.	12.0Typ.	16.0Typ.	16.0Typ.	12.0Typ.	12.0Typ.	12.0Typ.	12.0Typ.	16.0Typ.
Reel width	W1	12.4Min	12.4Min	16.5 Min	16.5 Min	12.4 Min.	12.4Min.	12.4Min.	12.4Min.	16.5 Min

Notice

MOSPEC reserves the rights to make changes of the content herein the document anytime without notification. MOSPEC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies. Please refer to MOSPEC website for the last document.

MOSPEC disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially incurred.

Application shown on the herein document are examples of standard use and operation. Customers are responsible for comprehending suitable use in particular applications. MOSPEC makes no representation or warranty that such application will be suitable for the specified use without further testing or modification.

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by MOSPEC for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of MOSPEC or others.

These MOSPEC products are intended for usage in general electronic equipment. Please make sure to consult with MOSPEC before you use these MOSPEC products in equipment which require specialized quality and/or reliability, and in equipment which could have major impact to the welfare of human life (atomic energy control, aeronautics , traffic control, combustion control, safety devices etc.)