

Surface Mount Schottky Barrier rectifiers

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes, in surface mount applications where compact size and weight are critical to the system.

Features

- * 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

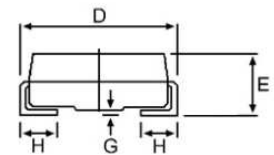
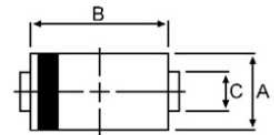


SCHOTTKY BARRIER RECTIFIERS

**1.0 AMPERES
20-60 VOLTS**



DO-214AC(SMA)



MAXIMUM RATINGS

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	V
Average Rectifier Forward Current	I_O	1.0					A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	25					A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150					°C

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	---	0.20
H	0.75	1.55

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	Unit
Maximum Instantaneous Forward Voltage ($I_F = 1.0$ Amp)	V_F	0.55		0.70			V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 100^\circ\text{C}$)	I_R	0.5 10					mA
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	60					°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & $f=1$ MHz)	C_P	90			80		pF

CASE---
Transfer molded
plastic

POLARITY---
Cathode indicated
polarity band

FIG-1 FORWARD CURRENT DERATING CURVE

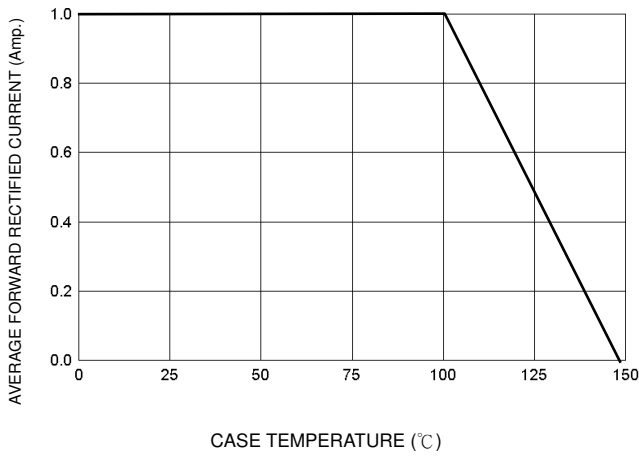


FIG-2 TYPICAL FORWARD CHARACTERISTICS

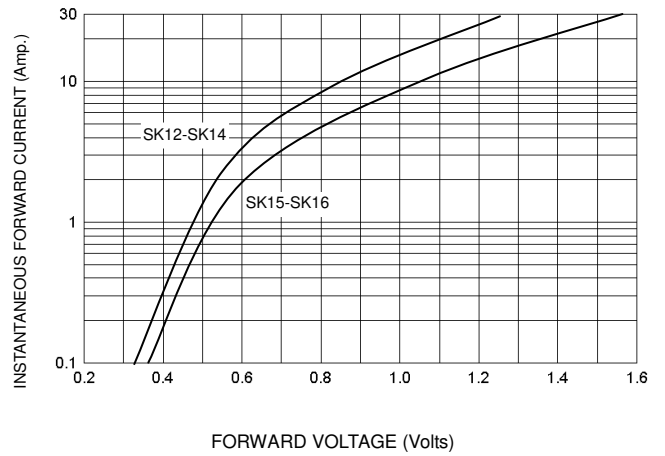


FIG-3 TYPICAL REVERSE CHARACTERISTICS

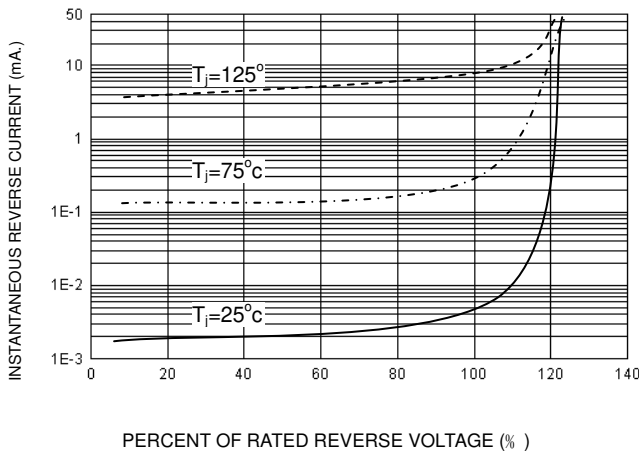


FIG-4 TYPICAL JUNCTION CAPACITANCE

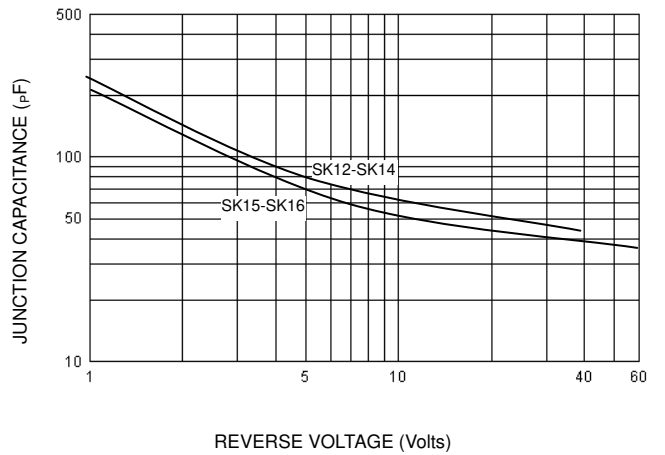
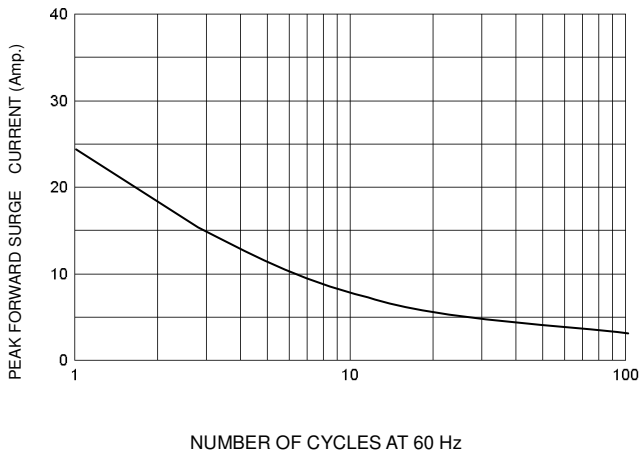


FIG-5 PEAK FORWARD SURGE CURRENT



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