MOSPEC

S06C30CE thru S06C45CE

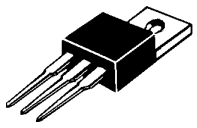
SCHOTTKY BARRIER RECTIFIERS

6 AMPERES
30-45 VOLTS

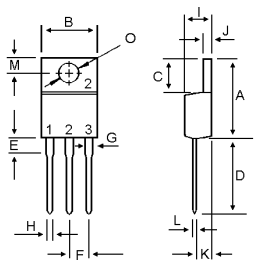
Schottky Barrier Rectifiers

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.

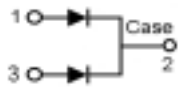
- ＊Low Forward Voltage.
- ＊Low Switching noise.
- ＊High Current Capacity
- ＊Guarantee Reverse Avalanche.
- ＊Guard-Ring for Stress Protection.
- ＊Low Power Loss & High efficiency.
- ＊150℃ Operating Junction Temperature
- ＊Low Stored Charge Majority Carrier Conduction.
- ＊Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O



TO-220AB



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90



Common cathode
Suffix “C”

MAXIMUM RATINGS

Characteristic	Symbol	S06C30CE	S06C35CE	S06C40CE	S06C45CE	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	35	40	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	25	28	32	V
Average Rectifier Forward Current Total Device (Rated V_R), T_C=100℃	$I_{F(AV)}$	3.0 6.0				A
Peak Repetitive Forward Current (Rate V_R, Square Wave, 20kHz)	I_{FM}	6.0				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	100				A
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +150				℃

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	S06C30CE	S06C35CE	S06C40CE	S06C45CE	Unit
Maximum Instantaneous Forward Voltage (I_F =3.0 Amp T_C = 25℃) (I_F =3.0 Amp T_C = 125℃)	V_F	0.57 0.47				V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	0.5 20				mA

S06C30CE Thru S06C45CE

FIG-1 FORWARD CURRENT DERATING CURVE

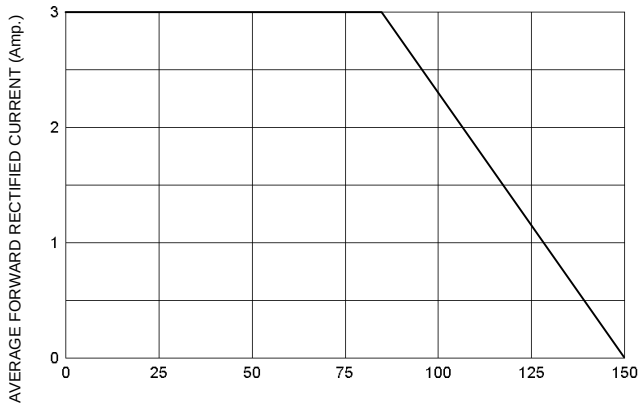


FIG-2 TYPICAL FORWARD CHARACTERISITICS

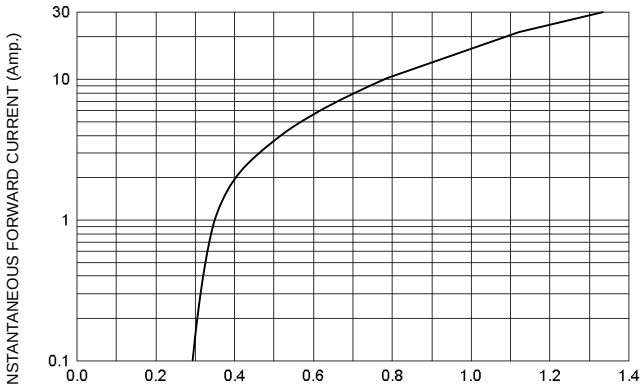


FIG-3 TYPICAL REVERSE CHARACTERISTICS

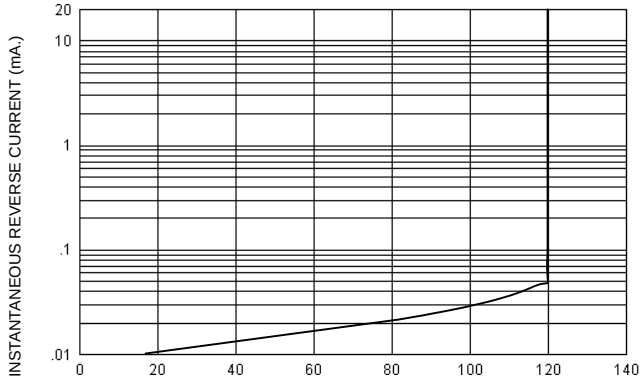


FIG-4 TYPICAL JUNCTION CAPACITANCE

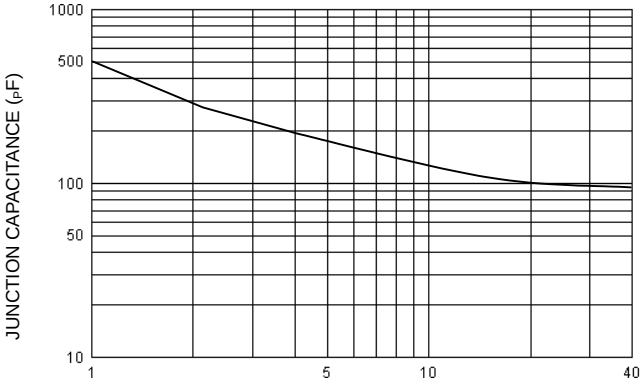
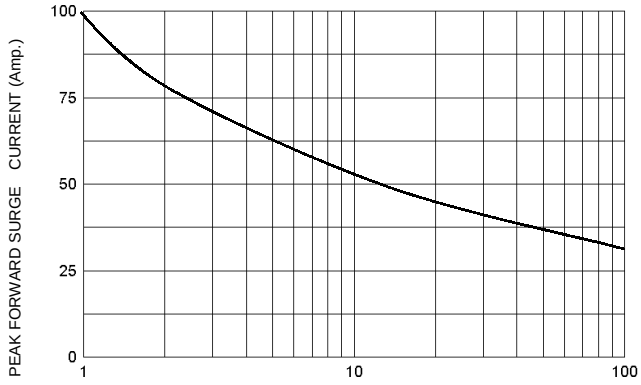


FIG-5 PEAK FORWARD SURGE CURRENT



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