



S16S30 Thru S16S60

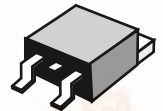
SWITCHMODE POWER RECTIFIERS D2 PAK SURFACE MOUNT POWER PACKAGE

The D2 PAK Power rectifier employs the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art devices have the following features:

- * Low Forward Voltage
- * Low Switching noise
- * High Surge Capacity
- * Guarantee Reverse Avalanche
- * Guard-Ring for Stress Protection
- * Lower Power Loss & High efficiency
- * 125 °C Operating Junction Temperature
- * Lower Stored Charge Majority Carrier Conduction
- * Similar Size to the industry Standard TO-220 Package
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

SCHOTTKY BARRIER RECTIFIERS

**16 AMPERES
30 -- 60 VOLTS**



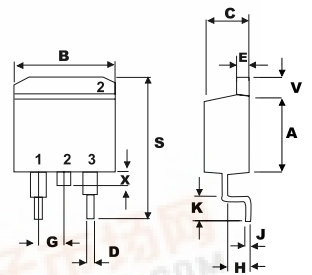
TO-263 (D2-PAK)

MAXIMUM RATINGS

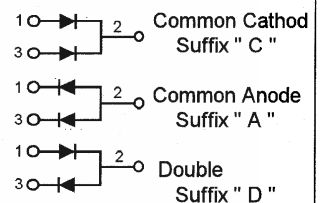
Characteristic	Symbol	S16S						Unit
		30	35	40	45	50	60	
Peak Repetitive Reverse Voltage	V_{RRM}	30	35	40	45	50	60	V
Working Peak Reverse Voltage	V_{RWM}							
DC Blocking Voltage	V_R							
RMS Reverse Voltage	$V_{R(RMS)}$	21	25	28	32	35	42	V
Average Rectifier Forward Current	$I_{F(AV)}$	8.0						A
Total Device (Rated V_R , $T_C=100^\circ\text{C}$)		16						
Peak Repetitive Forward Current	I_{FRM}	16						A
(Rate V_R , Square Wave, 20kHz)								
Non-Repetitive Peak Surge Current	I_{FSM}	150						A
(Surge applied at rate load conditions halfwave, single phase, 60Hz)								
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 125						$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	S16S						Unit
		30	35	40	45	50	60	
Maximum Instantaneous Forward Voltage	V_F							V
($I_F = 8.0 \text{ Amp}$, $T_C = 25^\circ\text{C}$)		0.55						
($I_F = 8.0 \text{ Amp}$, $T_C = 100^\circ\text{C}$)		0.48						
		0.65						
		0.57						
Maximum Instantaneous Reverse Current	I_R							mA
(Rated DC Voltage, $T_C = 25^\circ\text{C}$)		5.0						
(Rated DC Voltage, $T_C = 100^\circ\text{C}$)		50						



DIM	MILLIMETERS	
	MIN	MAX
A	8.12	9.00
B	9.70	10.30
C	4.23	4.90
D	0.51	1.15
E	1.10	1.50
G	2.54 BSC	
H	2.03	2.79
J	0.30	0.50
K	2.29	2.90
S	14.60	16.00
V	1.40	1.83
X	-----	1.70



S16S30 thru S16S45

FIG-1 FORWARD CURRENT DERATING CURVE

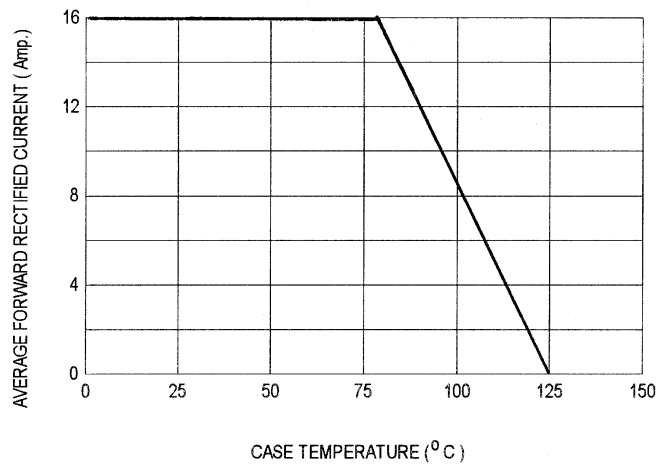


FIG-2 TYPICAL FORWARD CHARACTERISTICS

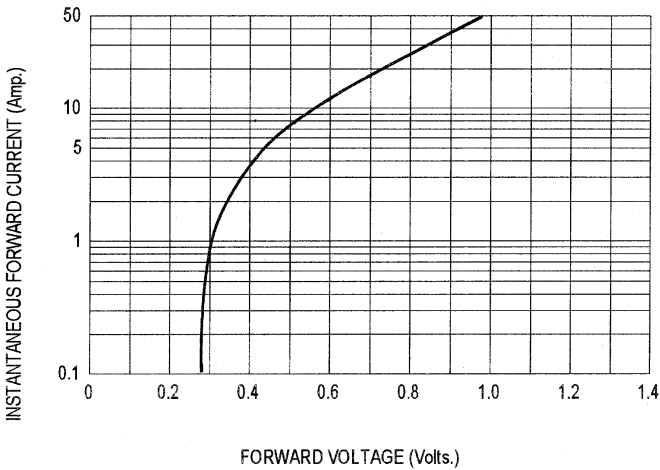


FIG-3 TYPICAL REVERSE CHARACTERISTICS

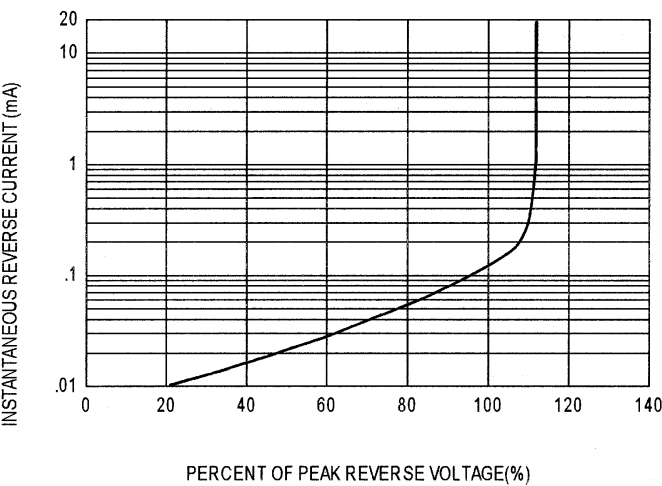


FIG-4 TYPICAL JUNCTION CAPACITANCE

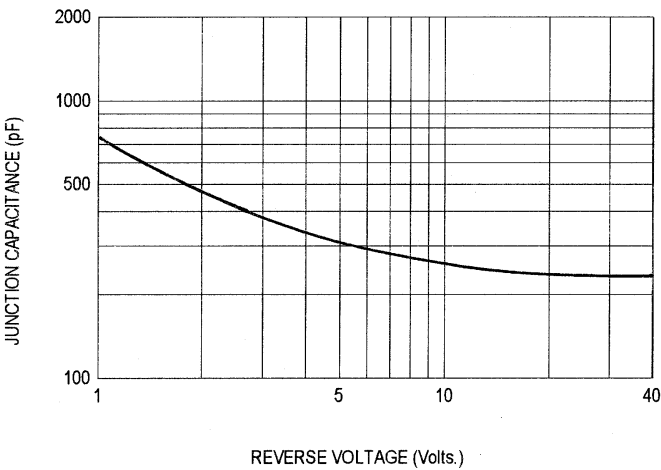
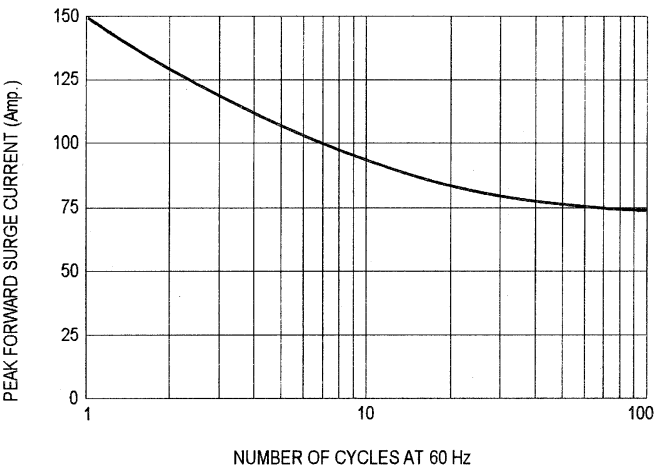


FIG-5 PEAK FORWARD SURGE CURRENT



S16S50 , S16S60

FIG-1 FORWARD CURRENT DERATING CURVE

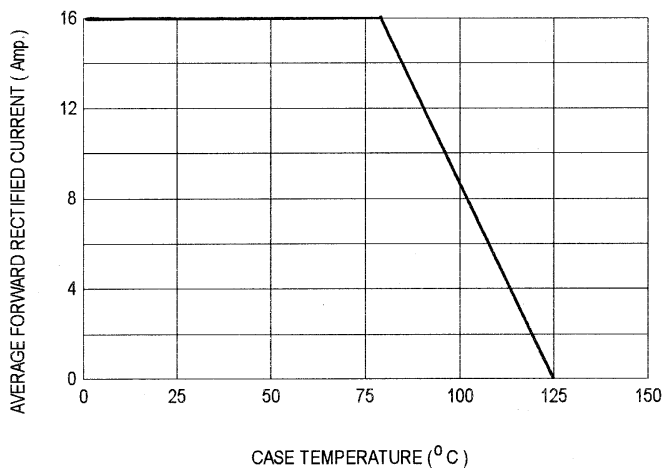


FIG-2 TYPICAL FORWARD CHARACTERISTICS

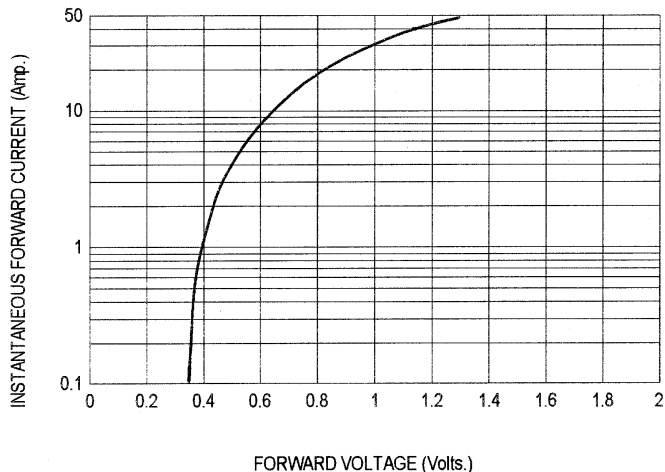


FIG-3 TYPICAL REVERSE CHARACTERISTICS

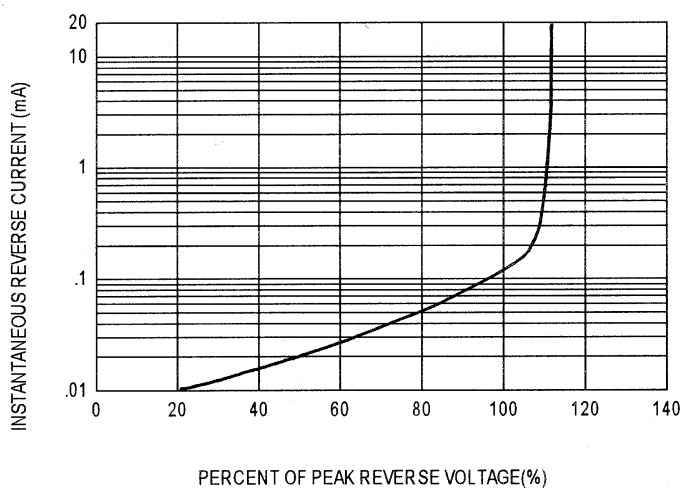


FIG-4 TYPICAL JUNCTION CAPACITANCE

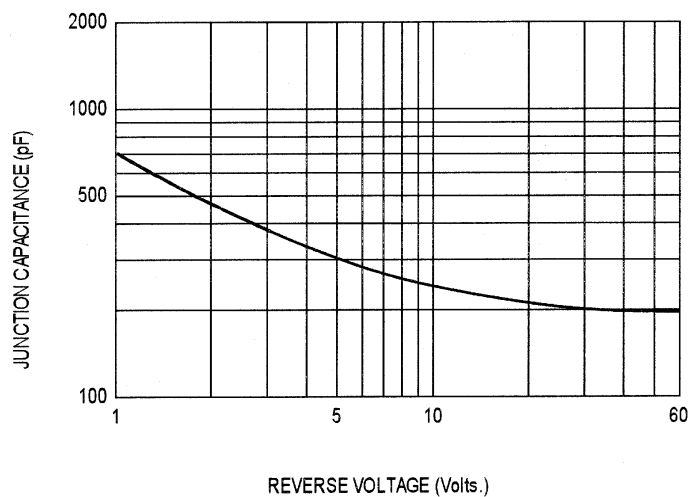


FIG-5 PEAK FORWARD SURGE CURRENT

