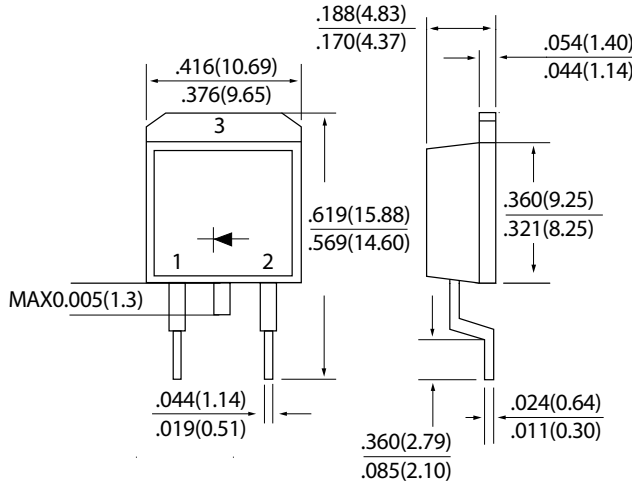
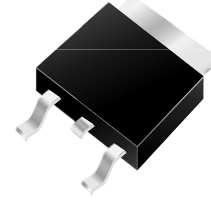




SM1520SD2 thru SM15200SD2



Schottky Barrier Rectifiers



D2PAK

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
SM15xxSD2	General
SM15xxSD2-H	Halogen Free
SM15xxSD2-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	15A
V_{RRM}	20~200V
I_{FSM}	200A
V_F	0.55V, 0.70V, 0.85V, 0.92V
T_J max	125°C , 150°C

Features

- Guard Ring for over voltage Protection
- High forward surge capability
- High frequency operation
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Mechanical Data

- Case:D2PAK
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals:Matte Tin Finish annealed over copper Leadframe. Solderable per MIL-STD-202
- Weight: 1.541 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SM 1520 SD2	SM 1530 SD2	SM 1540 SD2	SM 1550 SD2	SM 1560 SD2	SM 1580 SD2	SM 15100 SD2	SM 15150 SD2	SM 15200 SD2	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current	I_F	15.0									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200.0									A	
Maximum Instantaneous Forward Voltage $I_F=15A @ 25^\circ C$	V_F	0.55			0.70		0.85		0.92		V	
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	I_R	0.5 30					0.2 20					mA
Typical Junction Capacitance(NOTE1)	C_j	700			720		950		300		pF	
Typical Thermal Resistance	$R_{\theta JC}$	3									°C/W	
Operating Temperature Range	T_J	-55 to +125					-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150									°C	

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



Schottky Barrier Rectifiers

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

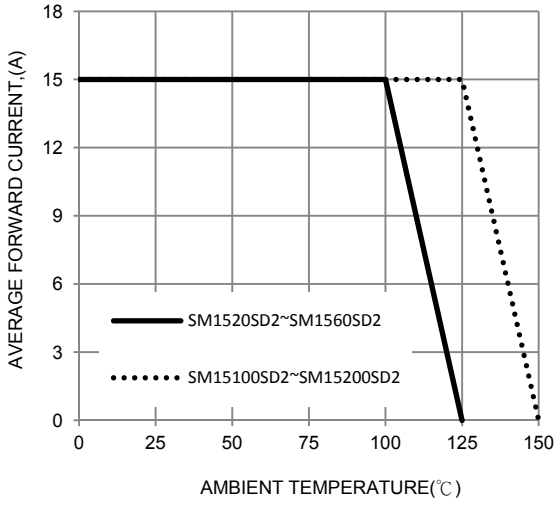


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

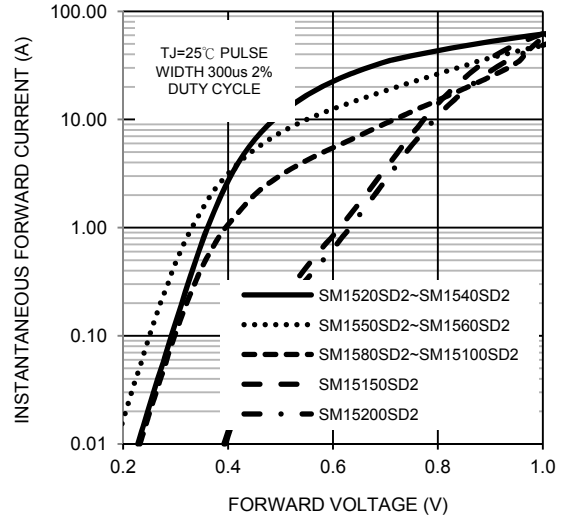


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

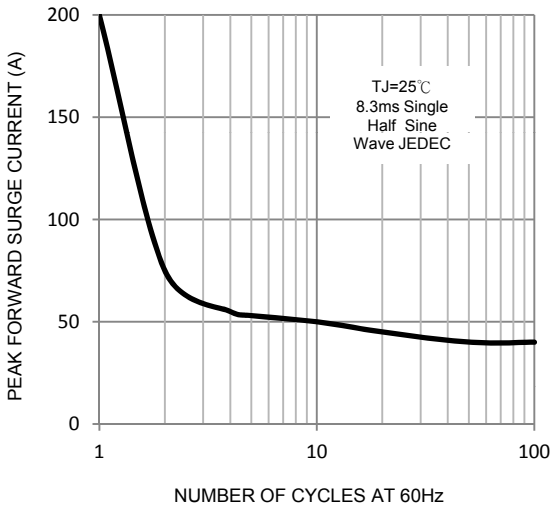


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

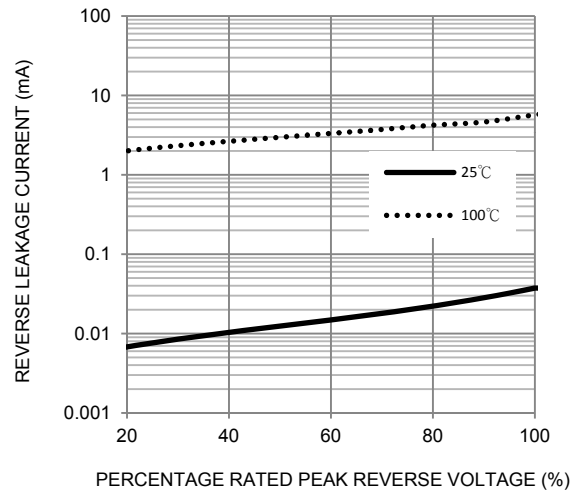


FIG. 5-TYPICAL JUNCTION CAPACITANCE

