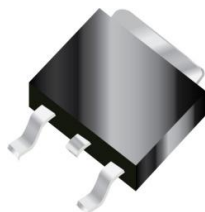


## Schottky Barrier Rectifiers



**D2-PAK**

Features
<ul style="list-style-type: none"> <li>• Low Forward Voltage Drop</li> <li>• Excellent High Temperature Stability</li> <li>• Excellent Barrier Rectifier Technology</li> <li>• Soft, Fast Switching Capability</li> </ul>

Primary Characteristics		
$I_F$	20	A
$V_{RRM}$	100	V
$I_{FSM}$	150	A
$V_F$	0.68	V
$T_J$ max	150	°C

Mechanical Data
• Case: D2-PAK
• Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
• Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208
• Weight: 1.43 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
SM1020CD2 thru SM10200CD2	General	D2-PAK	800 / Reel
SM1020CD2 thru SM10200CD2-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)												
PARAMETER	SYMBOL	SM 1020 CD2	SM 1030 CD2	SM 1040 CD2	SM 1050 CD2	SM 1060 CD2	SM 1080 CD2	SM 10100 CD2	SM 10150 CD2	SM 10200 CD2	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 (Total) (Per Leg)	$I_F$	10 5									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100									A	
Maximum Instantaneous Forward Voltage IF=5A @ 25°C IF=5A @ 100°C	$V_F$	0.55 0.52		0.70 0.60		0.85 0.70		0.92 0.85		V		
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	0.5 30					0.2 10				mA	
Typical Junction Capacitance(NOTE1)	$C_j$	230			200		155		120	100	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 +175										°C
Marking Code		SM 1020 CD2	SM 1030 CD2	SM 1040 CD2	SM 1050 CD2	SM 1060 CD2	SM 1080 CD2	SM 10100 CD2	SM 10150 CD2	SM 10200 CD2		

**NOTES:**

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

### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

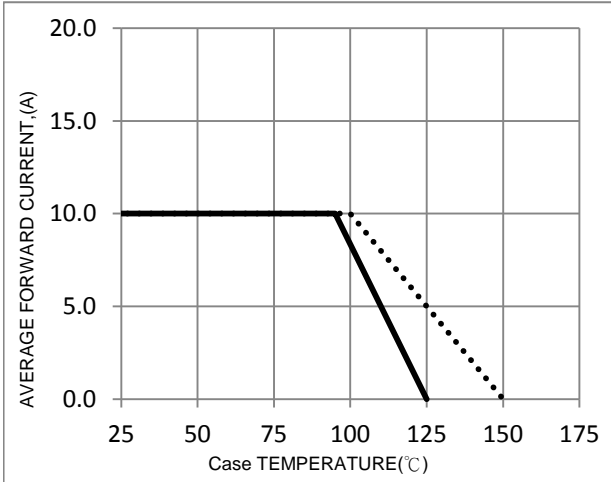


FIG. 2-Typical Forward Characteristics

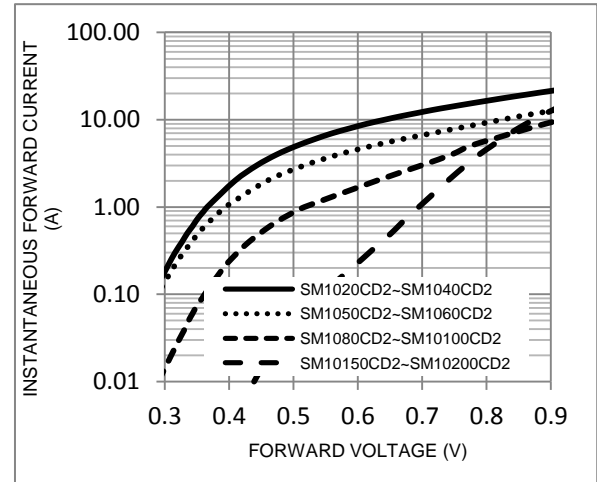


FIG. 3-Maximum Non-Repetitive Forward Surge Current

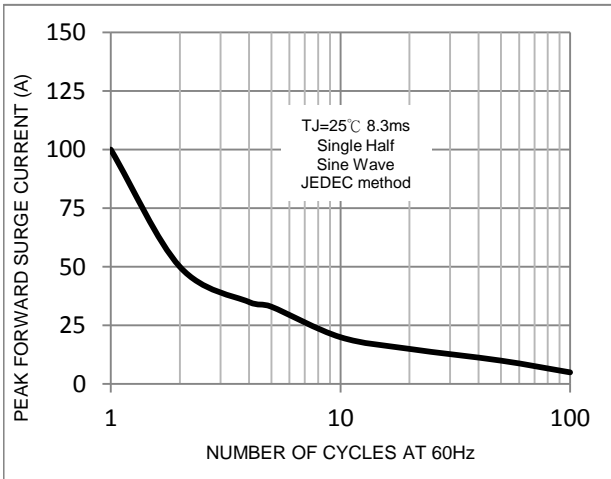


FIG. 4-Typical Reverse Characteristics

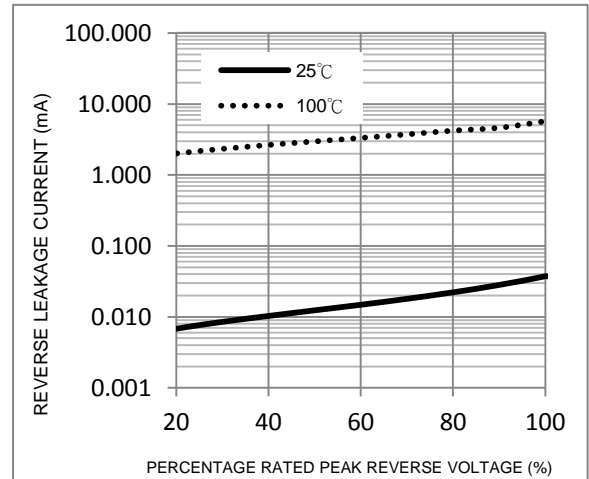
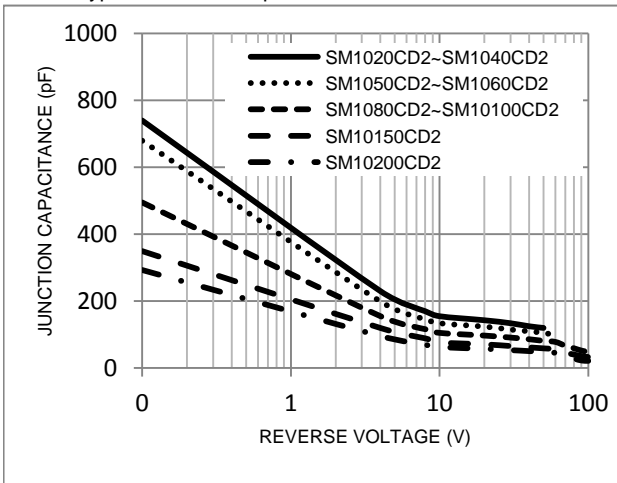
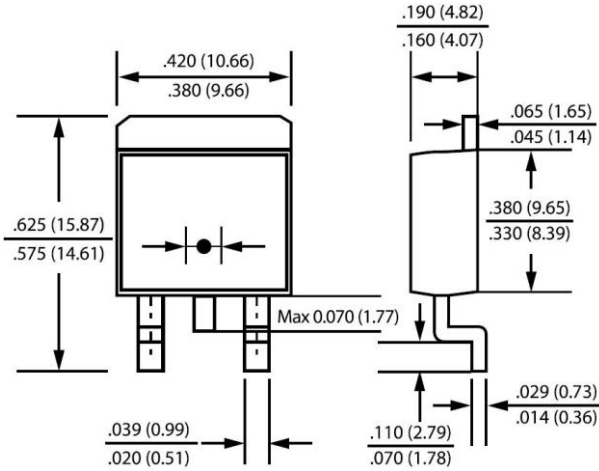


FIG. 5-Typical Junction Capacitance



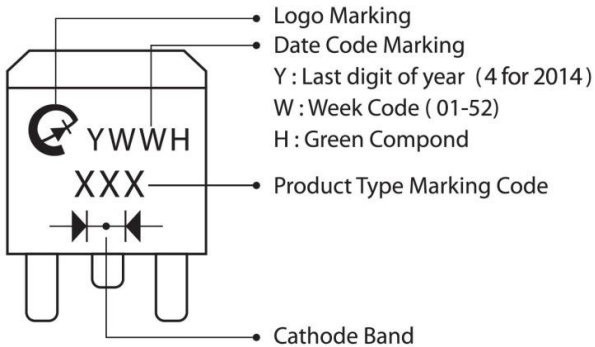
### Package Outline Dimensions



### D2-PAK

Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

Dimension	Outline	D2PAK (mm)
A		5.08
B		1.10
C		10.80
D		8.30
E		3.50
F		16.90

