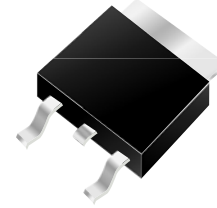


### D2PAK

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Remark
SM16xxCD2	General
SM16xxCD2-H	Halogen Free
SM16xxCD2-Q	Automotive

PRIMARY CHARACTERISTICS	
$I_F$	16A
$V_{RRM}$	20~200V
$I_{FSM}$	125A
$V_F$	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	SM	SM	SM	SM	SM	SM	SM	SM	UNIT	
		1620 CD2	1630 CD2	1640 CD2	1650 CD2	1660 CD2	1680 CD2	16100 CD2	16150 CD2	16200 CD2		
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)	$I_F$	16 8									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	125.0									A	
Maximum Instantaneous IF=8A @ 25°C Forward Voltage IF=8A @ 100°C	$V_F$	0.55 0.52		0.70 0.60		0.85 0.70		0.92 0.80		V		
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	$I_R$	0.5 30					0.2 10				mA	
Typical Junction Capacitance(NOTE1)	$C_j$	450			350		250		200 150		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

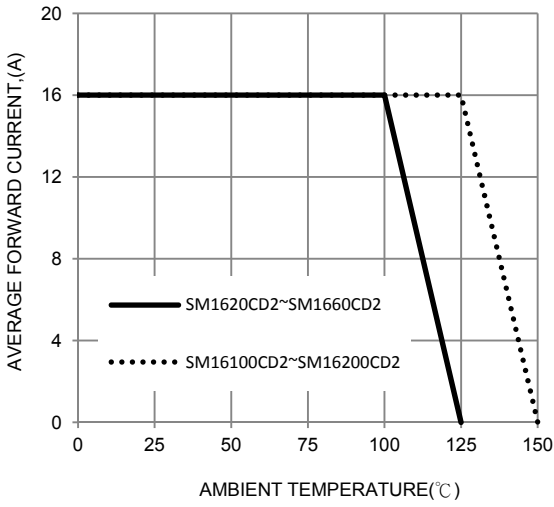


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

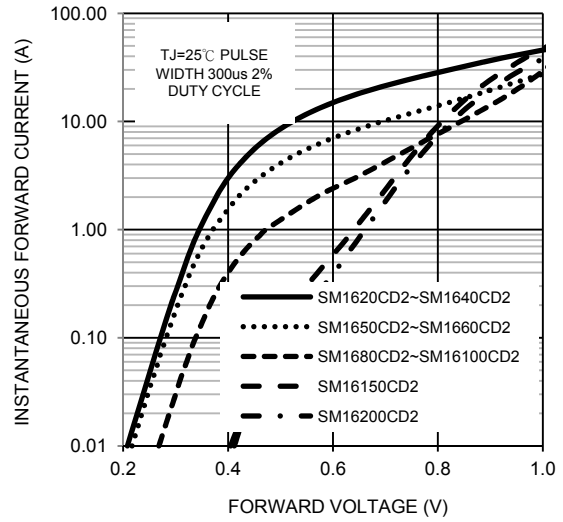


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

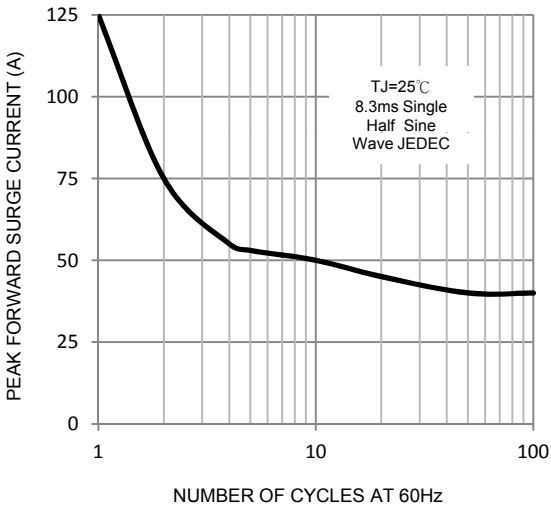


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

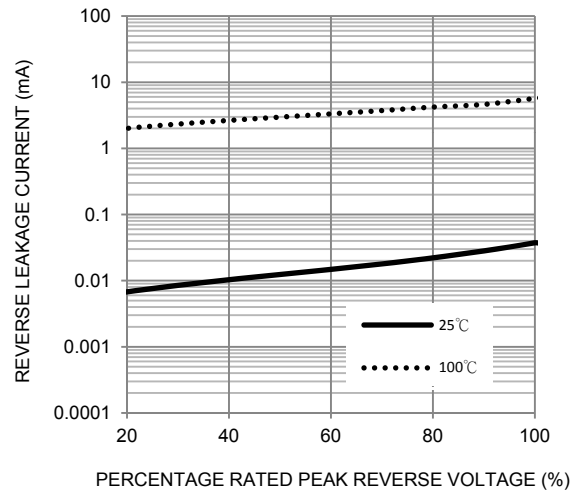


FIG. 5-TYPICAL JUNCTION CAPACITANCE

