

### **Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Current Capability
- · Guard Ring Protection
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Dovementor	Symbol	Value						11:4
Parameter		SR 202	SR 203	SR 204	SR 206	SR 208	SR 2010	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$							
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	60	80	100	V
DC Blocking Voltage	$V_R$							
RMS Reverse Voltage	V <sub>RMS</sub>	14	21	28	42	56	70	٧
Average Rectified Forward Current	I <sub>F(AV)</sub>	2			Α			
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I <sub>FSM</sub>	50			Α			
Current Squared Time @1ms≤t≤8.3ms	I <sup>2</sup> t	10.375			A <sup>2</sup> s			

# Marking code

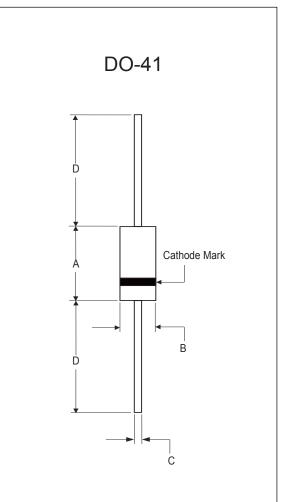
Part Number	Marking Code
SR202	SR202
SR203	SR203
SR204	SR204
SR206	SR206
SR208	SR208
SR2010	SR2010

### **Internal Structure**

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	1	
2	Anode	MCC J XXXXXX XXXXXX: 2 Marking Code	1 0 0 2

Note: 1. High temperature solder exemption applied, see EU directive annex 7a.

# & Amp 'GW clh\_mF YW]Z]Yf &0 to 100 Volts



DIMENSIONS						
DIM	INC	HES	MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOTE	
Α	0.160	0.205	4.10	5.20		
В	0.080	0.107	2.00	2.70	Ф	
С	0.028	0.035	0.71	0.90	Ф	
D	1.000		25.40			



# Thermal characteristics

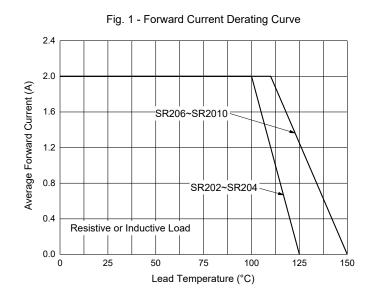
Symbol	Parameter	Conditions	Min	Тур	Max	Unit
$T_J$	Operating Junction Temperature Range	SR202~SR204	-55		125	°C
TJ	Operating Junction Temperature Range	SR206~SR2010	-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth <sub>(J-L)</sub>	Thermal Resistance from Junction to Lead			25		°C/W
Rth <sub>(J-A)</sub>	Thermal Resistance from Junction to Ambient			75		°C/W

# **Electrical Characteristics @ 25°C Unless Otherwise Specified**

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage  SR202~SR204  SR206  SR208~SR2010	V <sub>F</sub>	I <sub>F</sub> =2A;T <sub>J</sub> =25°C			0.50 0.70 0.85	V
Reverse Current  SR202~SR206  SR208~SR2010	I <sub>R</sub>	at Rated $V_R$ ; $T_J$ =25°C at Rated $V_R$ ; $T_J$ =125°C at Rated $V_R$ ; $T_J$ =25°C at Rated $V_R$ ; $T_J$ =125°C			0.1 20 0.01 5	mA
Junction Capacitance  SR202~SR204  SR206  SR208~SR2010	CJ	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		125 90 60		pF



### **Curve Characteristics**



Current

60

Current

40

40

20

8.3 ms Single Half Sine-Wave

0

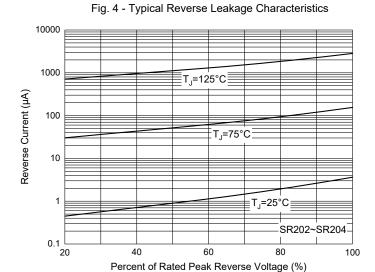
10

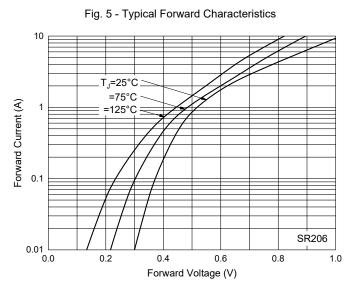
Number of Cycles at 60 Hz

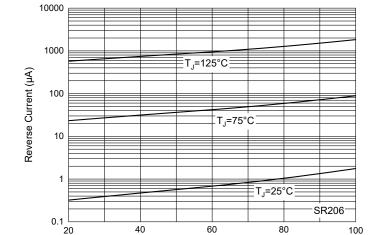
Fig. 2 - Maximum Non-Repetitive Peak Forward Surge

Fig. 3 - Typical Forward Characteristics

T<sub>J</sub>=25°C
=75°C
=75°C
=75°C
SR202~SR204
0.01
0.00
0.2
0.4
0.6
0.8
1.0







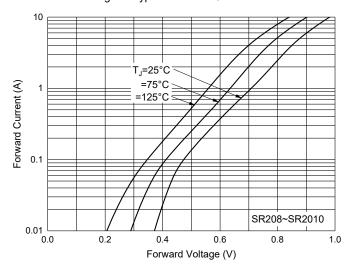
Percent of Rated Peak Reverse Voltage (%)

Fig. 6 - Typical Reverse Leakage Characteristics



### **Curve Characteristics**

Fig. 7 - Typical Forward Characteristics



100

100

T\_J=75°C

0.1

0.1

0.01

SR208~SR2010

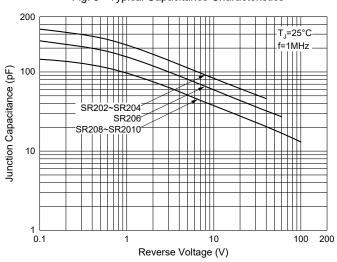
Percent of Rated Peak Reverse Voltage (%)

Fig. 8 - Typical Reverse Leakage Characteristics

T<sub>J</sub>=125°C

1000

Fig. 9 - Typical Capacitance Characteristics





### **Ordering Information**

Device	Packing		
Part Number-TP	Tape&Reel:5Kpcs/Reel		
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box		
Part Number-BP	Bulk:1Kpcs/Box,50Kpcs/Carton		

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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