

SMC Plastic-Encapsulate Diodes

SS52C THRU SS520C Schottky Rectifier Diodes

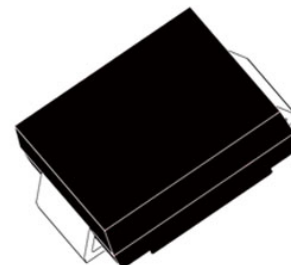


• Features

- $I_{F(AV)}$ 5A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

• Applications

- Rectifier



SMC (DO-214AB)

• MAXIMUM RATINGS $(T_C=25^{\circ}\text{C})$

Item	Symbol	Unit	Test Conditions	SS5								
				2C	3C	4C	5C	6C	8C	10C	15C	20C
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V		14	21	28	35	42	56	70	105	140
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave, Resistance load	5.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	150								
Junction Temperature	T _J	℃		-55~+150								
Storage Temperature	T _{STG}	℃		-55 ~ +150								

• ELECTRICAL CHARACTERISTICS $(T_a=25^{\circ}\text{C})$

Item	Symbol	Unit	Test Condition		SS5								
					2C	3C	4C	5C	6C	8C	10C	15C	20C
Peak Forward Voltage	V _F	V	I _F =5.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25℃	0.5				0.1				
	T _a =100℃			10				5					
Thermal Resistance(Typical)	R _{θJ-C}	℃/W	Between junction and case		7.0								
	Between junction and ambient		52.5										
	Between junction and terminal		16										
Juction Capacitance (Typical)	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		260			220		130		100	80

Notes:

Thermal resistance from junction to case, from junction to ambient and from junction to lead mounted on 1" x 1"(25.4mm x 25.4mm) FR4 PCB, double sided copper, with minimum pad layout

• Ordering Information:

Part NO.	SS52C-SS520C
Marking	SS5**
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

• Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

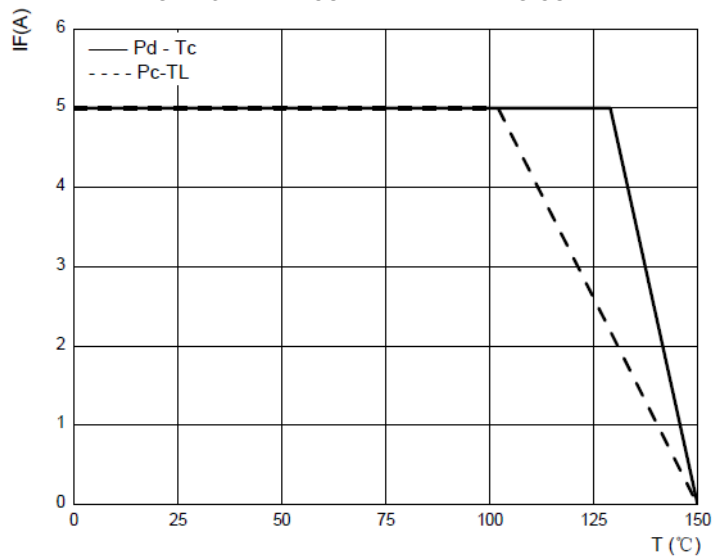
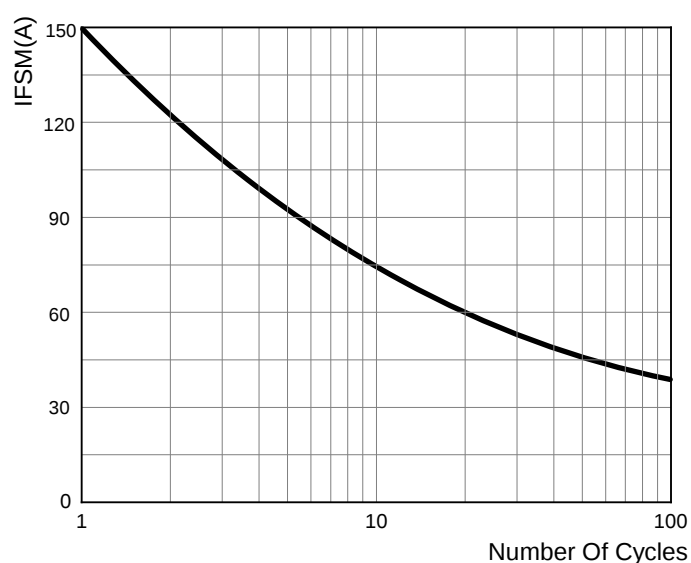
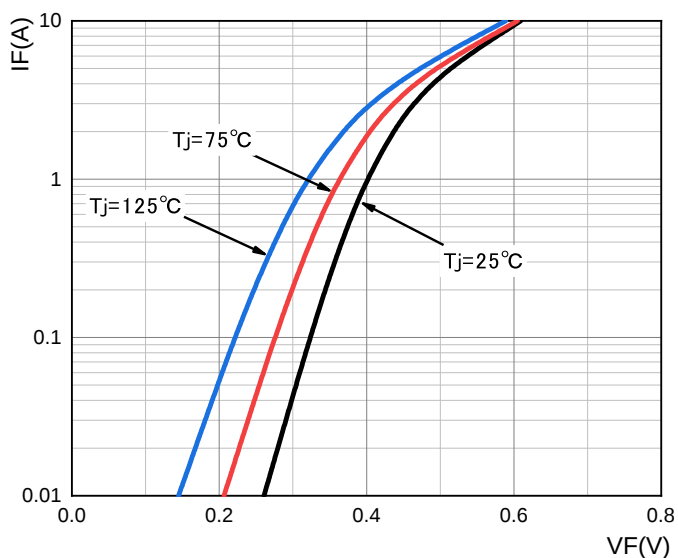


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



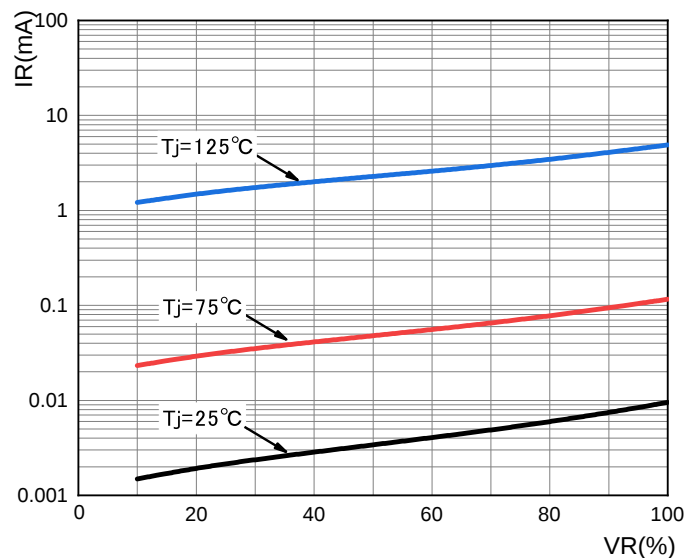
SS52C-SS54C

FIG.3: TYPICAL FORWARD CHARACTERISTICS



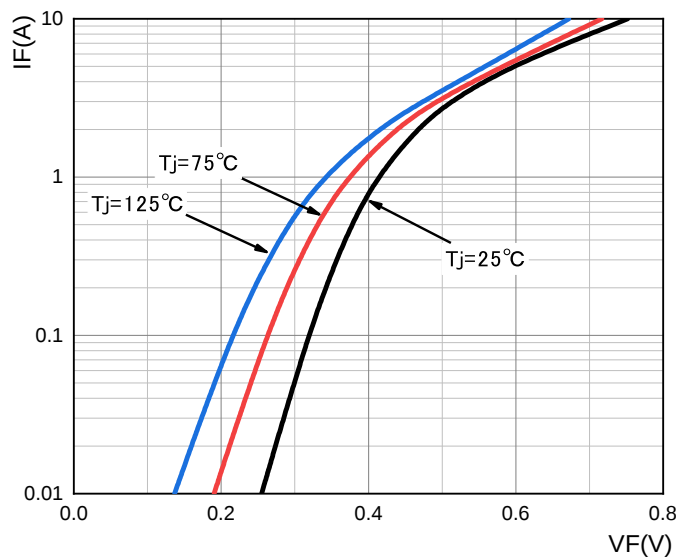
SS52C-SS54C

FIG.4: TYPICAL REVERSE CHARACTERISTICS



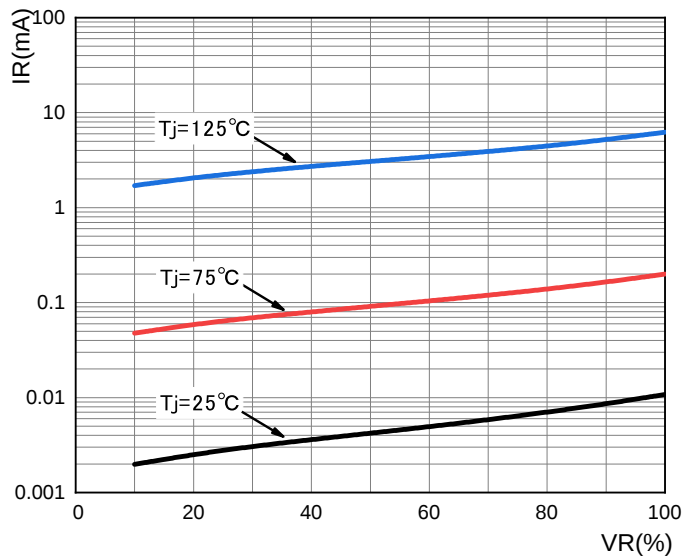
SS55C-SS56C

FIG.5: TYPICAL FORWARD CHARACTERISTICS



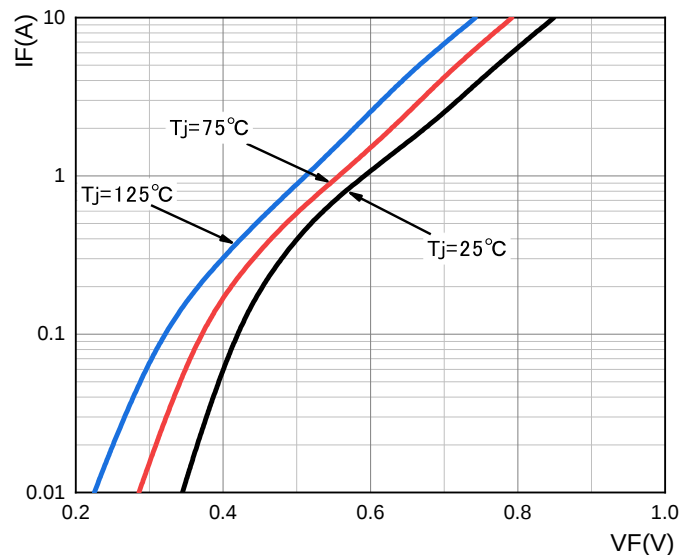
SS55C-SS56C

FIG.6: TYPICAL REVERSE CHARACTERISTICS



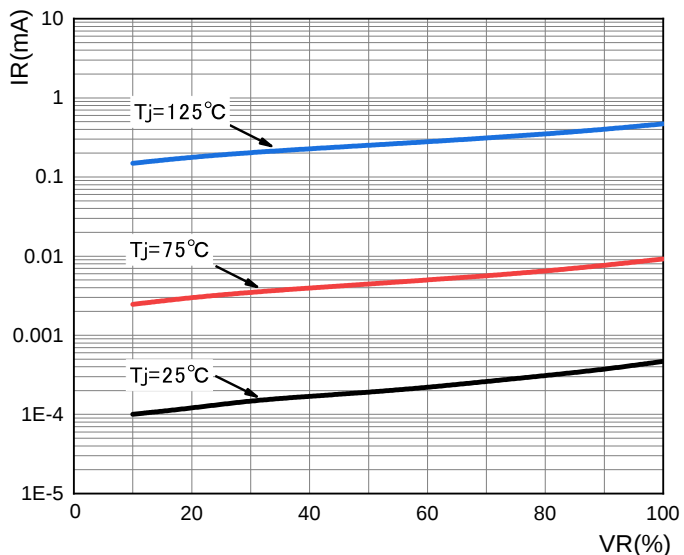
SS58C-SS510C

FIG.7: TYPICAL FORWARD CHARACTERISTICS



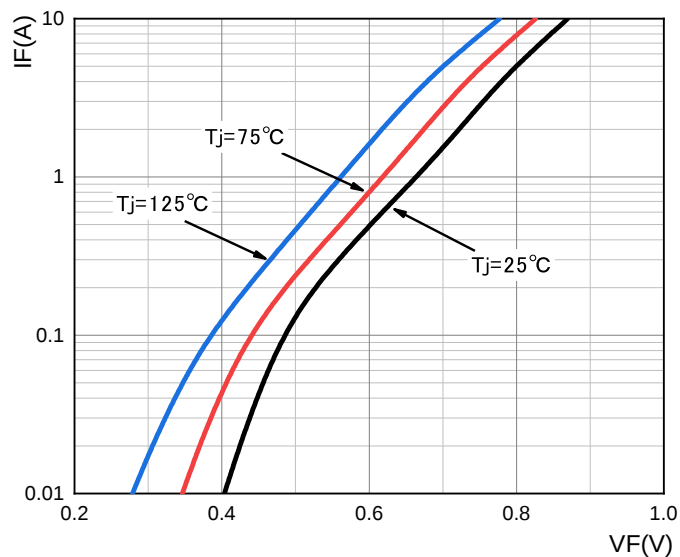
SS58C-SS510C

FIG.8: TYPICAL REVERSE CHARACTERISTICS



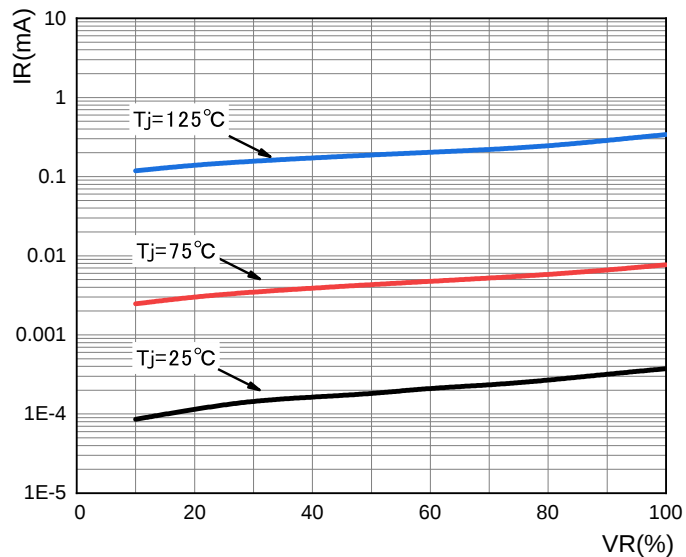
SS515C

FIG.9: TYPICAL FORWARD CHARACTERISTICS



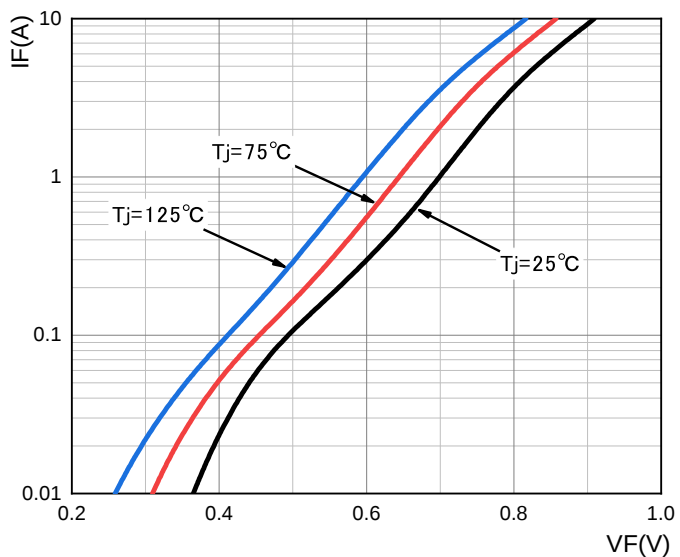
SS515C

FIG.10: TYPICAL REVERSE CHARACTERISTICS



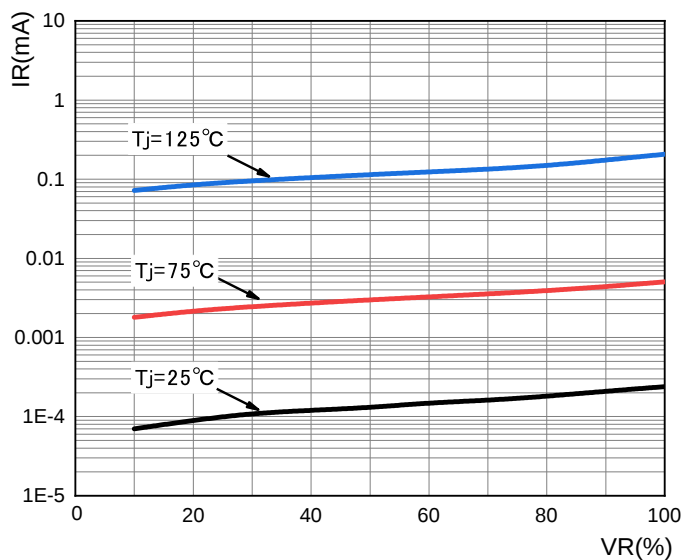
SS520C

FIG.11: TYPICAL FORWARD CHARACTERISTICS

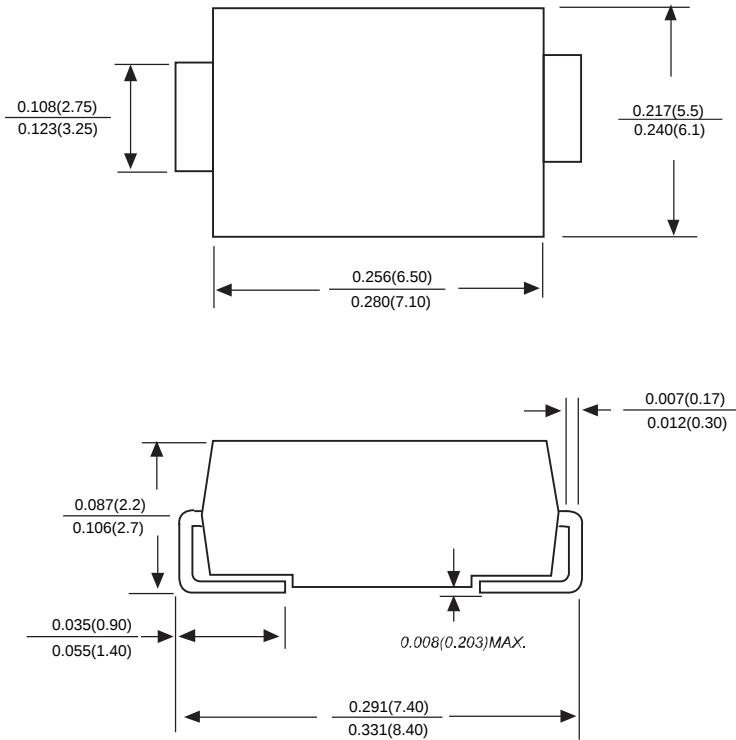


SS520C

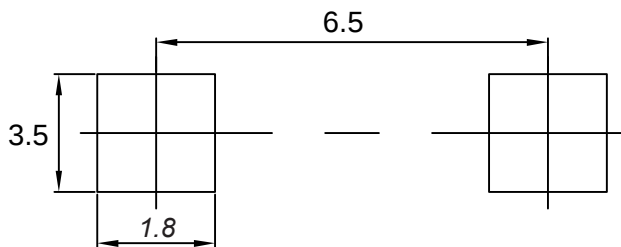
FIG.12: TYPICAL REVERSE CHARACTERISTICS



SMC Package Outline Dimensions



Dimensions in inches and (millimeters)



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.