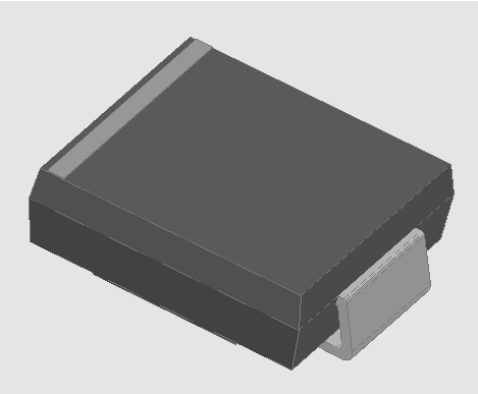
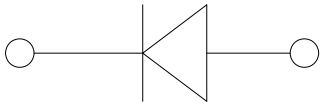
RoHS
COMPLIANT



- Guardring for overvoltage protection
- Low power losses
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Part no. with suffix “Q” means AEC-Q101 qualified

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive and polarity protection applications.



- DO-214AB (SMC)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Cathode line denotes the cathode end

■ (T_a=25 Unless otherwise specified

Device marking code			SS58	SS510
Repetitive peak reverse voltage	V_{RRM}	V	80	100
Maximum RMS voltage	V_{RMS}	V	56	70
Maximum DC blocking voltage	V_{DC}	V	80	100
Maximum average forward rectified current at T_L (Fig.1)	I_O	A	5.0	
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T_J=25	I_{FSM}	A	120	
Voltage rate of change (rated V_R)	dV/dt	V/μs	10000	
Storage temperature	T_{stg}		-55 ~+175	
Junction temperature	T_J		-55 ~+175	

■ T_a=25 Unless otherwise specified

Instantaneous forward voltage	V_F	I_F=5A	T_J=25	0.77	0.8	V
			T_J=125	0.63	0.75	
Reverse current	I_R	Rated V_R	T_J=25	0.2	10	μA
			T_J=125	-	200	
Typical junction capacitance	C_J	V_R=4V,f=1MHz		150	-	pF

■ T_a=25 Unless otherwise specified

Thermal resistance	$R_{\theta J\text{-}A}$(1)	/W	47[1)]	
	$R_{\theta J\text{-}L}$(1)		13[1)]	

Note(1)
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ (Example)

	F1	Approximate 0.251	3000	42000	13” reel

■ (Typical)

Fig.1:Forward Current Derating Curve

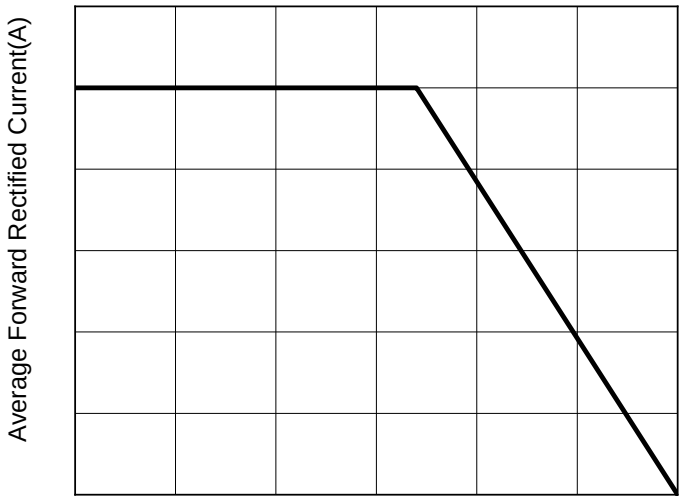


Fig.2:Maximum Non-Repetitive Peak Forward Surge Current

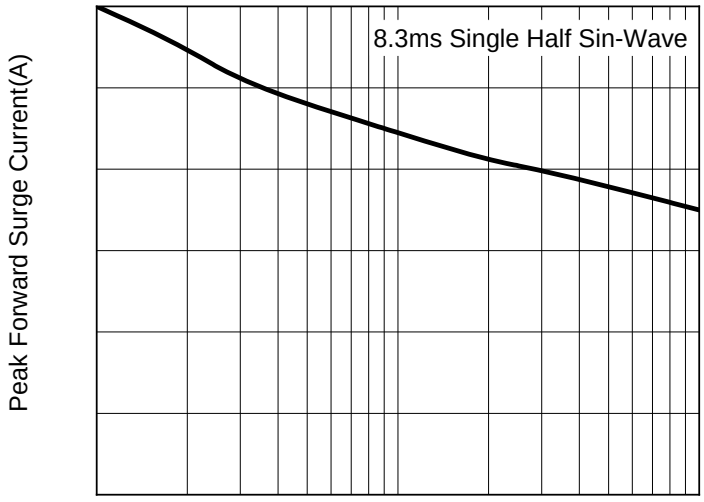


Fig.3:Typical Instantaneous Forward Characteristics

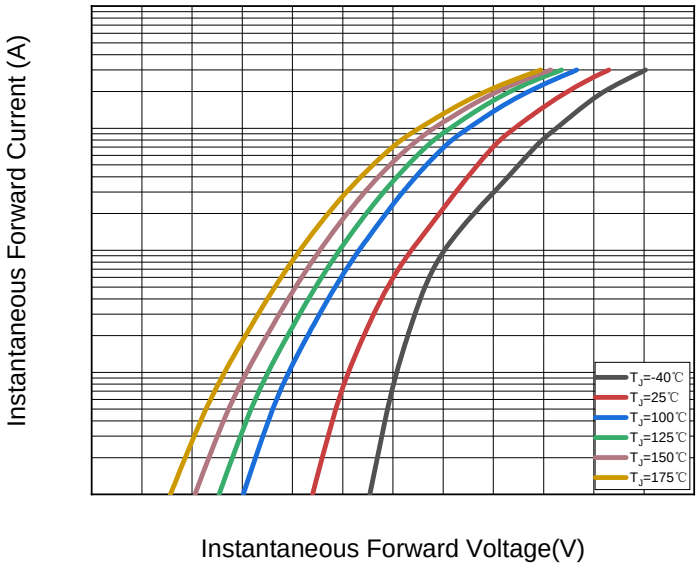
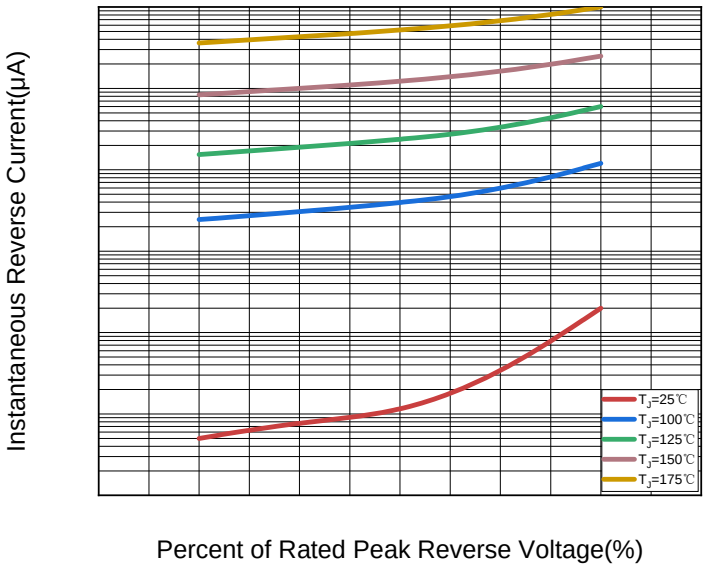
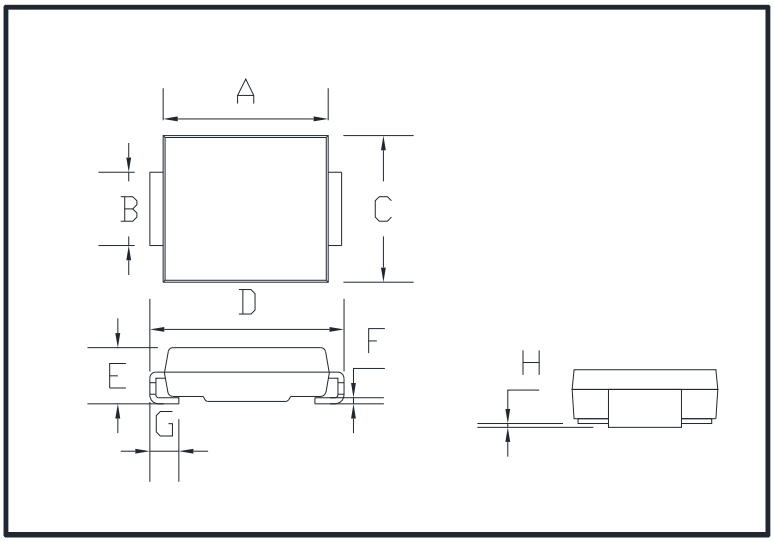


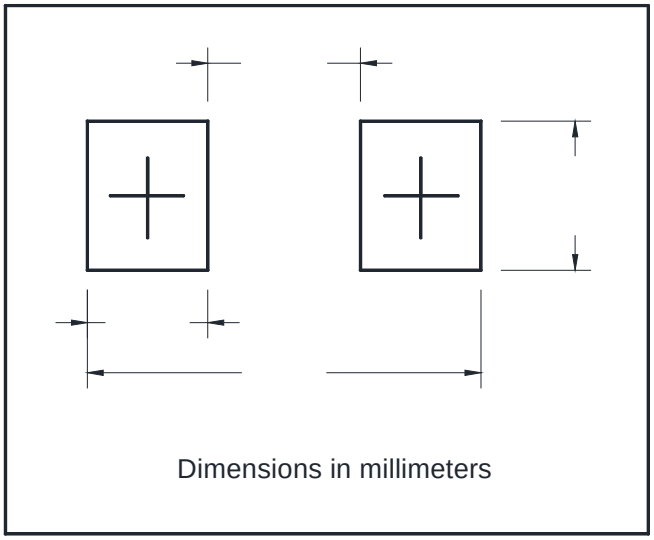
Fig.4:Typical Reverse Leakage Characteristics



■



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.05	0.20



P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

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