Elektronische Bauelemente

SM5150C

VOLTAGE 150 V

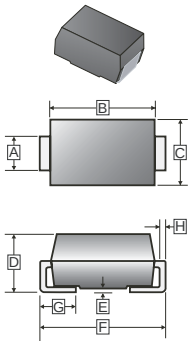
5.0 A Schottky Barrier Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Revise Current

SMC



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.75	3.15	E	-	0.203
B	6.60	7.11	F	7.75	8.13
C	5.59	6.22	G	0.76	1.27
D	2.00	2.62	H	0.15	0.31

MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads, Solderable per MIL-STD-202 method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	SM5150C	UNITS
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{RWM} V_R	150	V
Average Forward Current @T_J=25°C	$I_{F(AV)}$	5	A
Peak Forward Current @ 8.3 ms Half Sine	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage V_F @ I_{FM} = 5.0 A, T_A = 25°C V_F @ I_{FM} = 5.0 A, T_A = 75°C V_F @ I_{FM} = 5.0 A, T_A = 125°C	V_F	 0.83 0.73 0.65	V
Maximum DC Reverse Current (Note: 3) At Rated DC Blocking Voltage @ T_J = 25°C At Rated DC Blocking Voltage @ T_J = 100°C	I_R	 50 800	μA
Typical Junction Capacitance	C_J	350	pF
Typical Thermal Resistance (Note 2)	$R\theta_{JL}$	20	°C/W
Voltage Rate of Chance (Rated V_R)	dv/dt	1000	V/μs
Operating Temperature Range	T_J	-50 ~ + 150	°C
Storage temperature	T_{STG}	-65 ~ + 150	°C

NOTES:
1. Measured at 1MHz and applied reverse voltage of 5.0 V D.C.
2. Thermal Resistance Junction to Lead
3. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

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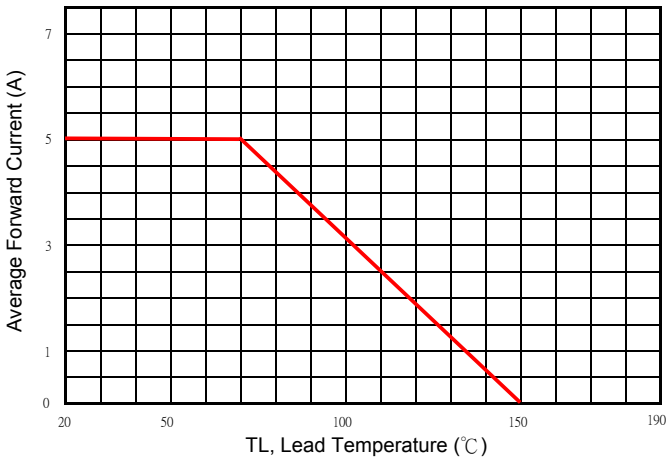
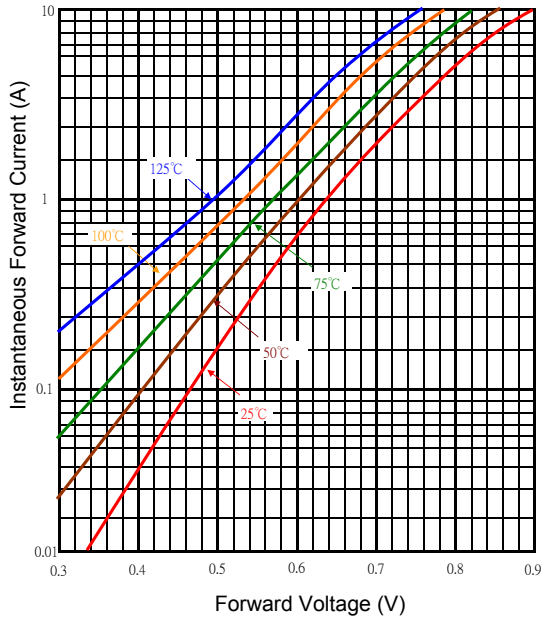
RATINGS AND CHARACTERISTIC CURVES

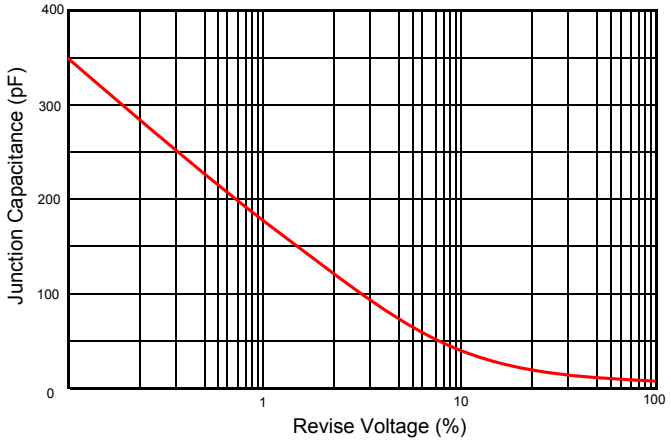
Typical Forward Current Derating Curve



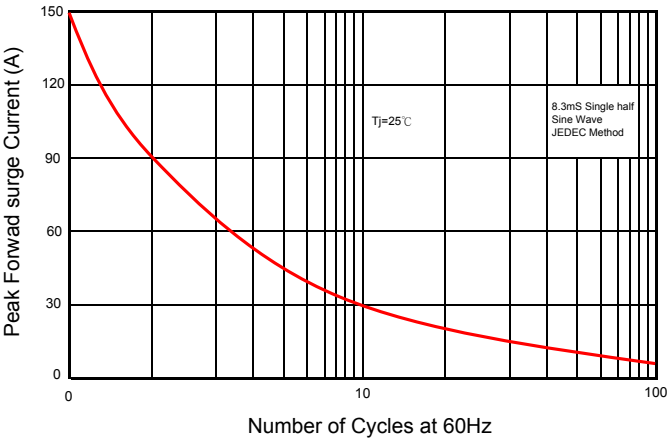
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic