Elektronische Bauelemente

SM30100D

Voltage 100V

30Amp Schottky Barrier Rectifiers

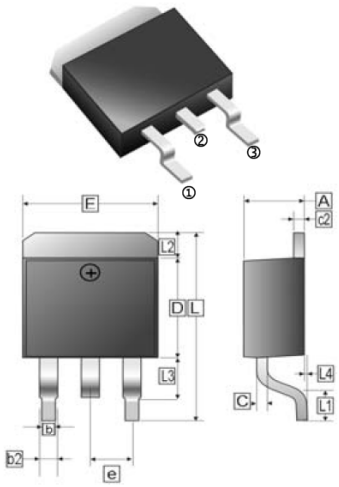
RoHS Compliant Product

A suffix of “-C” specifies halogen & lead-free

FEATURES

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Epitaxial Construction

TO-263(D²-PACK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.00	4.87	c2	1.07	1.65
b	0.51	1.01	b2	1.34 REF	
L4	0.00	0.30	D	8.0	9.65
C	0.30	0.74	e	2.54 REF	
L3	1.50 REF		L	14.6	16.1
L1	2.5 REF		L2	1.27 REF	
E	9.60	10.67			

MECHANICAL DATA

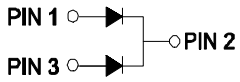
- Case: Molded Plastic
- Epoxy: UL94V-0 Rate Flame Retardant
- Lead: Lead Solderable Per MIL-STD-202 Method 208 Guaranteed
- Polarity: as Marked
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-263(D²-PACK)	0.8K	13 inch

ORDER INFORMATION

Part Number	Type
SM30100D	Lead (Pb)-free
SM30100D-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Ratings	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS Voltage		V_{RMS}	70	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	I_F	15	A
	Per Device		30	
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	200	A
Maximum Instantaneous Forward Voltage @15A	T_A=25℃	V_F	0.85	V
	T_A=100℃		0.72	
Maximum Reverse Current at Rated V_{RRM} Per Diode [2]	T_A=25℃	I_R	0.1	mA
	T_A=100℃		5	
Typical Junction Capacitance [1]		C_J	350	pF
Voltage Rate of Change		dv/dt	10000	V/us
Typical Thermal Resistance [3]		$R_{\theta Jc}$	6	℃/W
Operating & Storage Temperature		T_J ,T_{STG}	-55~150	℃

Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Plus test: 300uS Pulse width, 1% duty cycle..
3. FR4 Board Heat sink size: 10*10*0.2mm.

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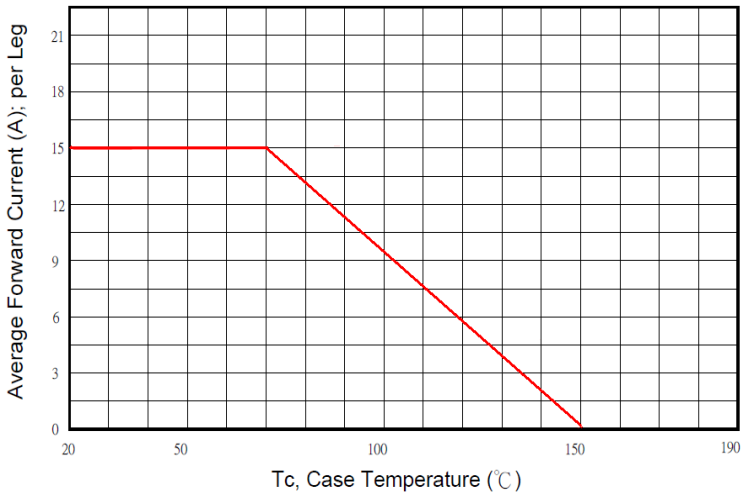
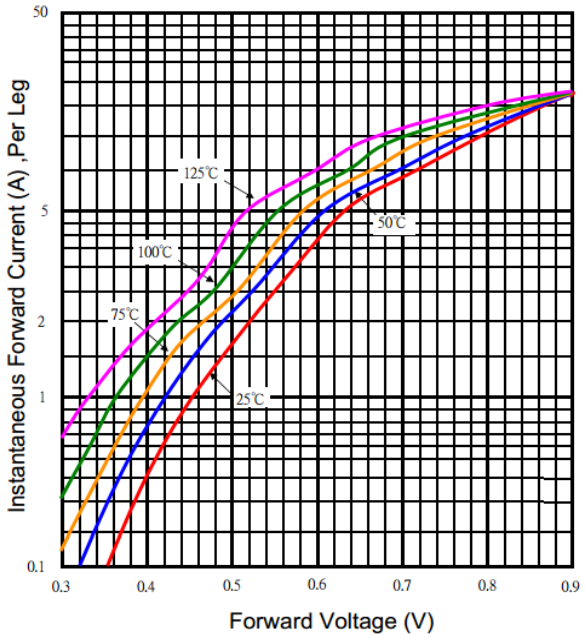
RATINGS AND CHARACTERISTIC CURVES

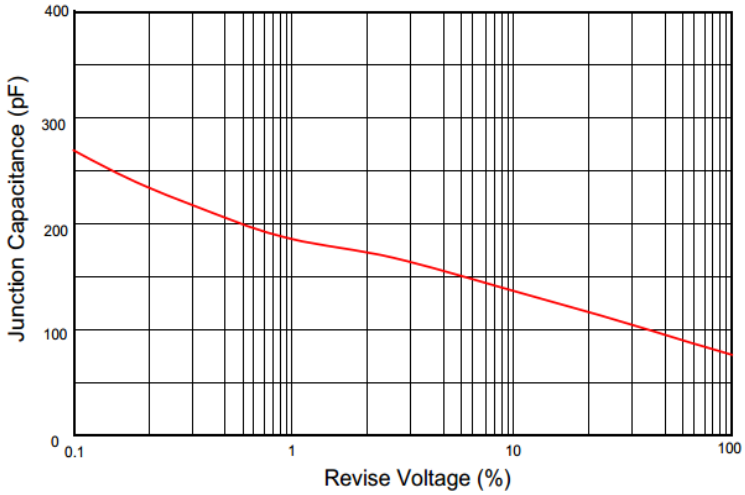
Typical Forward Current Derating Curve



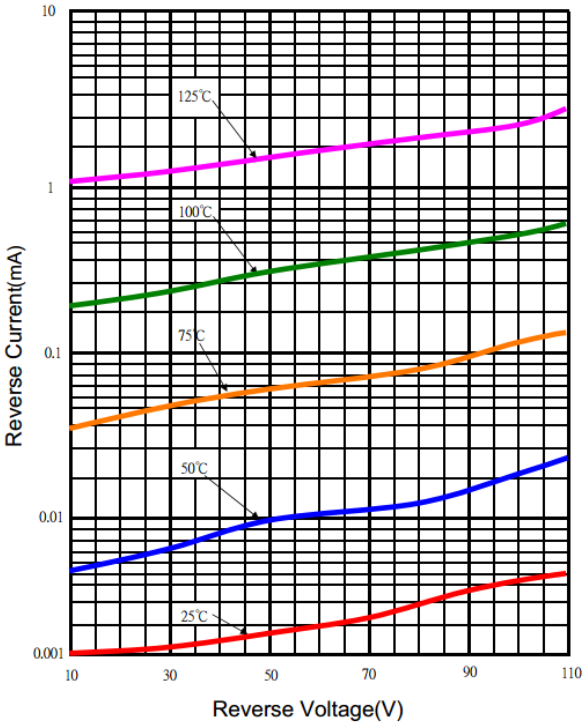
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current