Elektronische Bauelemente

SM10100DS1

VOLTAGE 100 V

10A Schottky Barrier Rectifiers

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

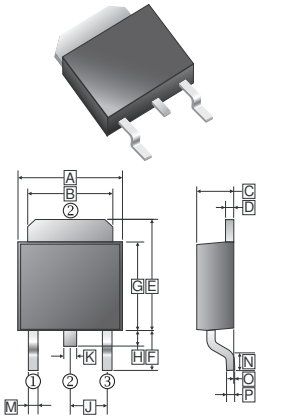
FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

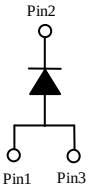
MECHANICAL DATA

- 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

TO-252(D-PACK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.90	J	2.30 REF.	
B	4.95	5.50	K	0.64	1.14
C	2.10	2.50	M	0.50	1.14
D	0.43	0.9	N	1.3	1.8
E	6.0	7.5	O	0	0.13
F	2.80 REF		P	0.58REF.	
G	5.40	6.40			
H	0.60	1.20			



Configuration

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch

MAXIMUM RATINGS

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

PARAMETER		SYMBOL	RATING	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		I_F	10	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	150	A
Maximum Instantaneous Forward Voltage @10A	T_A=25℃	V_F	0.85	V
	T_A=100℃		0.72	
Maximum Reverse Current at Rated VRRM Per Diode [2]	T_A=25℃	I_R	0.1	mA
	T_A=100℃		5	
Typical Junction Capacitance [1]		C_J	580	pF
Voltage Rate Of Change		dv/dt	10000	V/us
Typical Thermal Resistance [3]		$R_{\theta JC}$	10	℃/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, 2% duty cycle.
3. Thermal Resistance Junction to Case. FR4 Board Heat sink size: 10*10*0.2mm.

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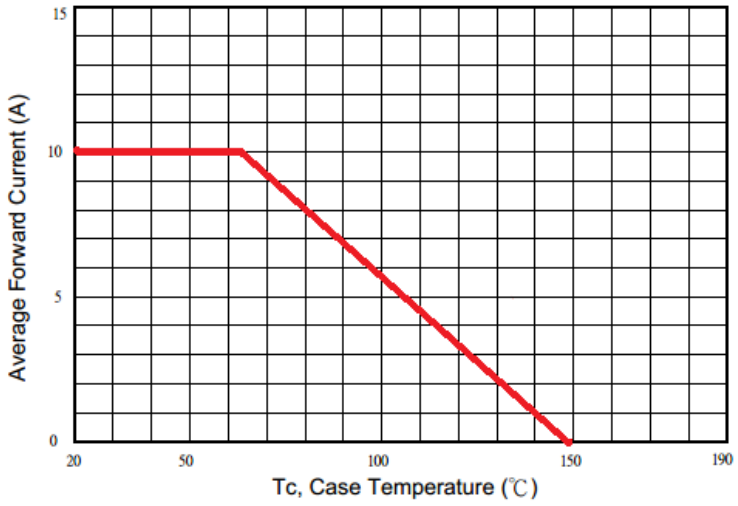
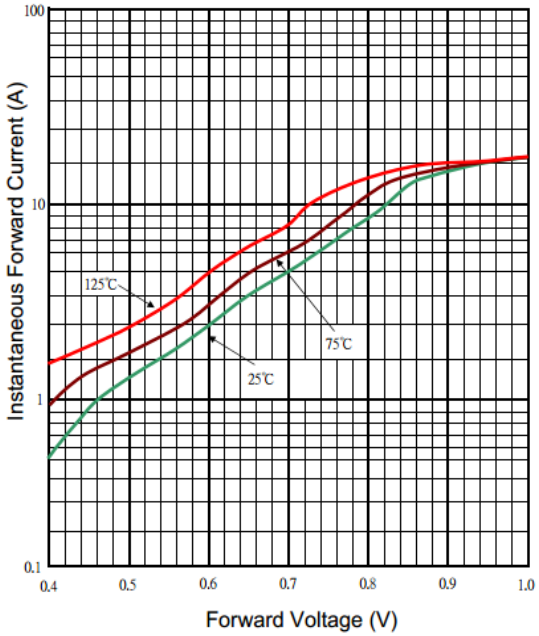
RATINGS AND CHARACTERISTIC CURVES

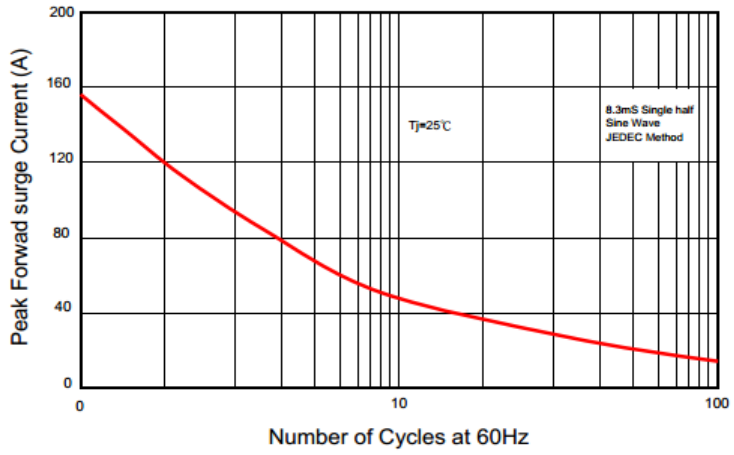
Typical Forward Current Derating Curve



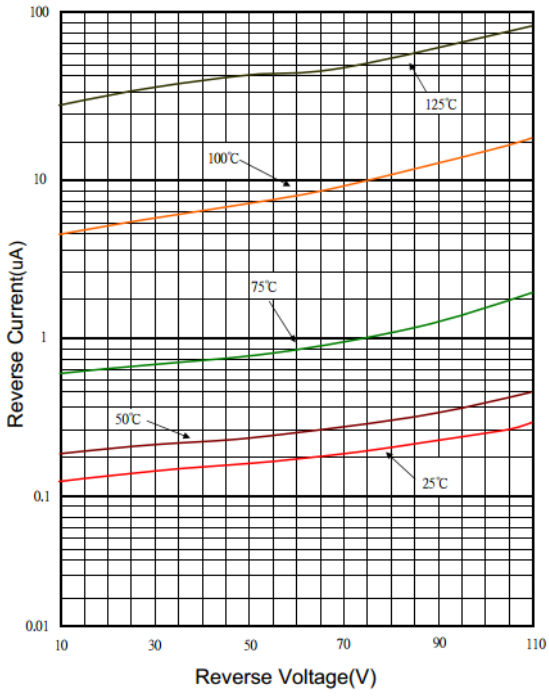
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance