Elektronische Bauelemente

SM1040DS1

Voltage 40V

10.0 Amp. Schottky Barrier Rectifiers

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

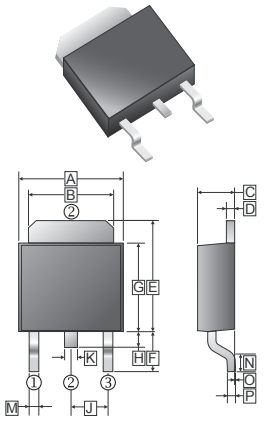
FEATURES

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

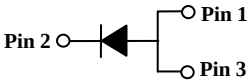
MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208
- Polarity: As Marked
- Mounting position: Any
- Weight: 0.7 grams

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			



PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch

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, de-rate current by 20%.)

Parameter		Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	40	V
Working Peak Reverse Voltage		V_{RSM}	40	V
Maximum DC Blocking Voltage		V_{DC}	40	V
Maximum Average Forward Rectified Current		I_F	10	A
Peak Forward Surge Current @8.3ms Single Half Sine-Wave Superimposed On Rated Load		I_{FSM}	150	A
Maximum Instantaneous Forward Voltage @10A	T_A=25°C	V_F	0.58	V
	T_A=125°C		0.53	
Maximum DC Reverse Current at Rated DC Blocking Voltage [3]	T_A=25°C	I_R	0.3	mA
	T_A=125°C		15	
Typical Junction Capacitance [1]		C_J	450	pF
Voltage Rate of Chance (Rated VR)		dv/dt	10000	V/uS
Typical Thermal Resistance [2]		$R_{\theta JC}$	10	°C / W
Operating & Storage Temperature		T_J, T_{STG}	-55~150	°C

Note:
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case, FR4 Board Heat sink size: 10*10*0.2mm.
3. Pulse Test : Pulse Width≦300μs Duty Cycle≦2%

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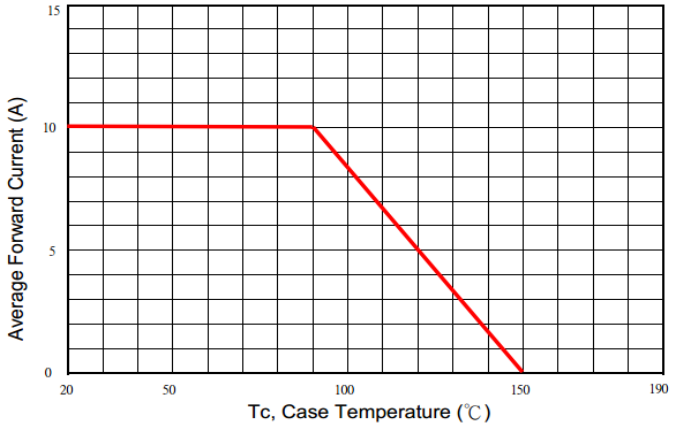
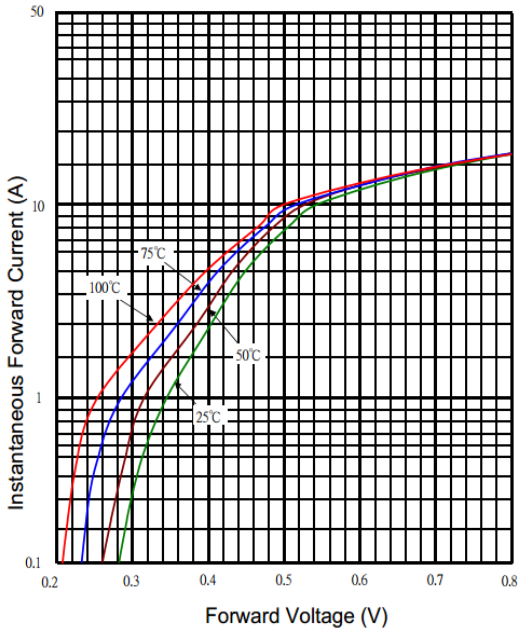
RATINGS AND CHARACTERISTIC CURVES

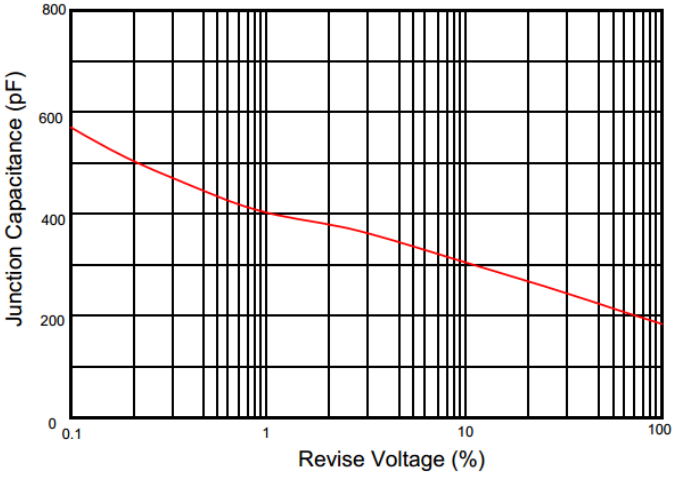
Typical Forward Current Derating Curve



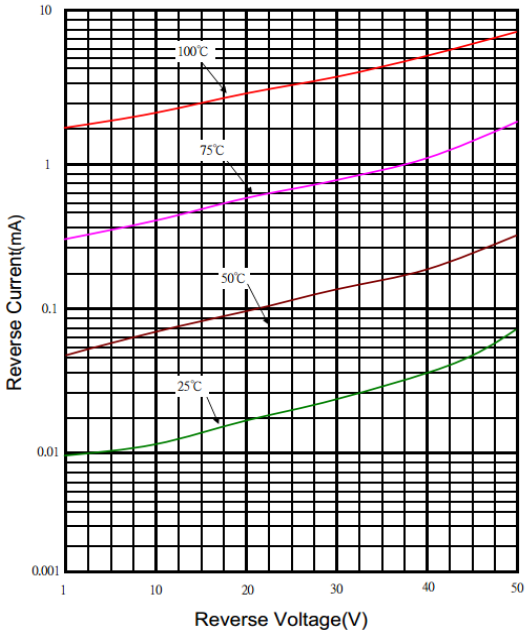
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current