Elektronische Bauelemente

SM3040D

Voltage 40V

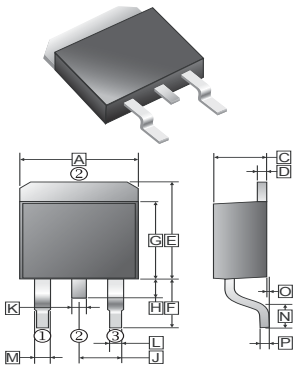
30.0 Amp Schottky Barrier Rectifiers

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

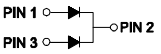
FEATURES

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

TO-263(D^2-PACK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.50	10.50	H	1.50 REF.	
C	4.30	4.80	J	2.54 TYP.	
D	1.17	1.45	K	-	-
E	9.50	10.50	L	0.71	1.00
F	4.33	5.93	M	1.17	1.47
G	8.50	9.00	P	0.31	0.53



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
- Weight: 1.4 grams

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-263	0.8K	13' inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

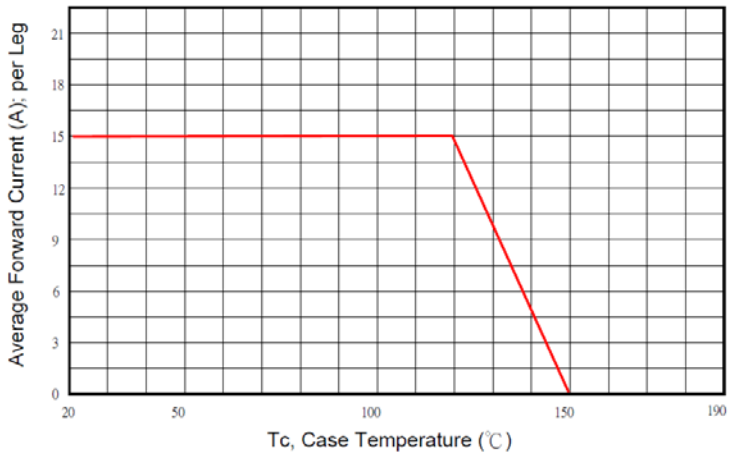
(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	40	V
Maximum RMS Voltage		V_{RMS}	28	V
Maximum DC Blocking Voltage		V_{DC}	40	V
Maximum Average Forward Rectified Current		I_F	30	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	250	A
Maximum Instantaneous Forward Voltage @ 15A		V_F	0.6	V
Maximum Reverse Current at Rated VR Per Diode [4]	T_A=25°C	I_R	1	mA
	T_A=100°C		12	
Typical Junction Capacitance [1]		C_J	2400	pF
Voltage Rate Of Change		dv / dt	10000	V/us
Typical Thermal Resistance [2]		$R_{\theta JA}$	50	°C/W
Typical Thermal Resistance [3]		$R_{\theta Jc}$	3	°C/W
Operating & Storage Temperature		T_J ,T_{STG}	-55~150	°C

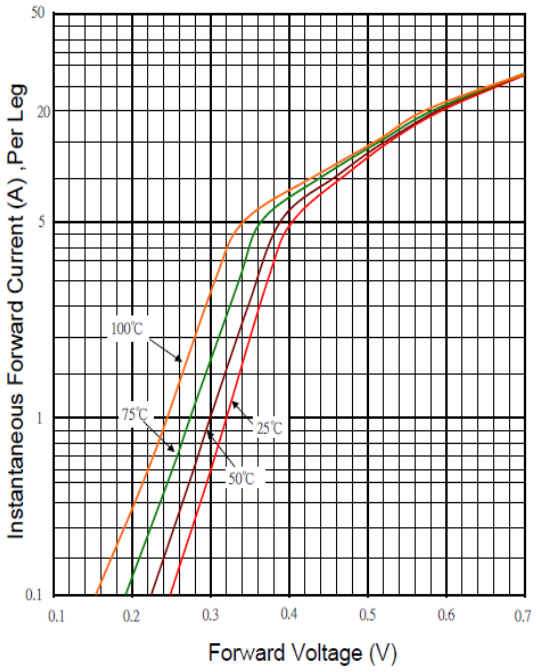
Notes:
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.
3. Thermal Resistance Junction to Case.
4. Pulse test: Pulse width 40ms.

RATINGS AND CHARACTERISTIC CURVES

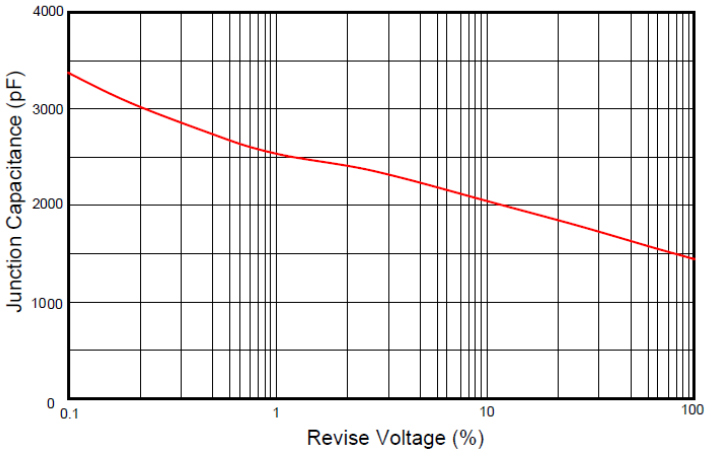
Typical Forward Current Derating Curve



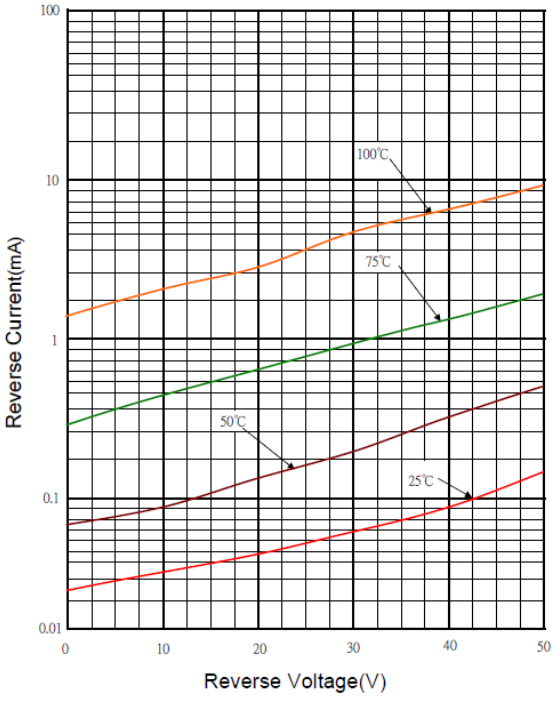
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

