

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

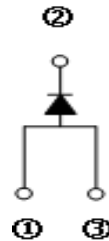
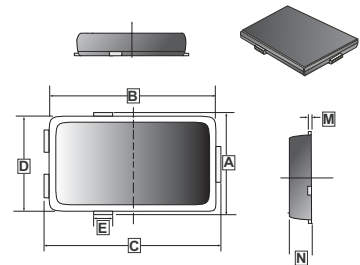
FEATURES

- Low leakage
- Low forward voltage drop
- Super long operating life
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-277A	4K	13' inch

TO-277A



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.8	H	4.05 Typ.	
B	5.9	6.3	J	4.4	4.8
C	6.3	6.7	K	2.0	2.2
D	4.1	4.5	L	1.0	1.4
E	0.65 Typ.		M	0.15	0.35
F	3.55	3.95	N	1.0	1.4
G	1.85	2.25			

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	
		SMP 1020	SMP 1030	SMP 1040	SMP 1045	SMP 1050	SMP 1060	SMP 1090	SMP 10100		
Recurrent Reverse Voltage (Max.)	V_{RRM}	20	30	40	45	50	60	90	100	V	
DC Blocking Voltage (Max.)	V_{DC}	20	30	40	45	50	60	90	100	V	
Instantaneous Forward Voltage (Max.)	V_F	$I_F=10A, T_A=25^\circ C$	0.55	0.55	0.55	0.58	0.7	0.7	0.85	0.85	V
		$I_F=5A, T_A=125^\circ C (Typ.)$	0.38	0.38	0.38	0.42	0.58	0.58	0.68	0.68	
Average Forward Rectified Current (Max.) @ $T_A = 25^\circ C$	$I_{F(AV)}$	10								A	
Peak Forward Surge Current. 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275								A	
Typical thermal resistance junction to ambient	$R_{\theta JA}$	100								K / W	
Typical thermal resistance junction to lead	$R_{\theta JL}$	3									
DC Reverse Current at Rated DC Blocking Voltage (Max.)	I_R	$T_A=25^\circ C$	0.5				0.5				mA
		$75^\circ C, 50\% V_{RRM} (Typ.)$	1				0.5				
		$T_A=100^\circ C$	50				30				
Operating Temperature Range	T_J	-55~150								°C	
Storage Temperature Range	T_{STG}	-55~150								°C	

CHARACTERISTIC CURVES

FIG.1 – PEAK FORWARD SURGE CURRENT

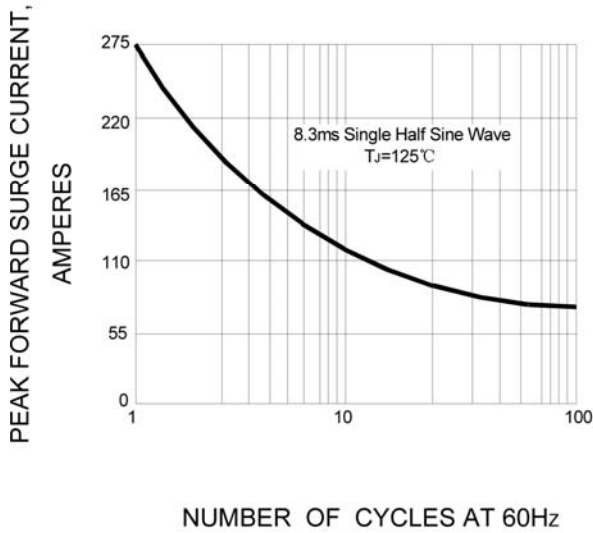


FIG.2 – FORWARD DERATING CURVE

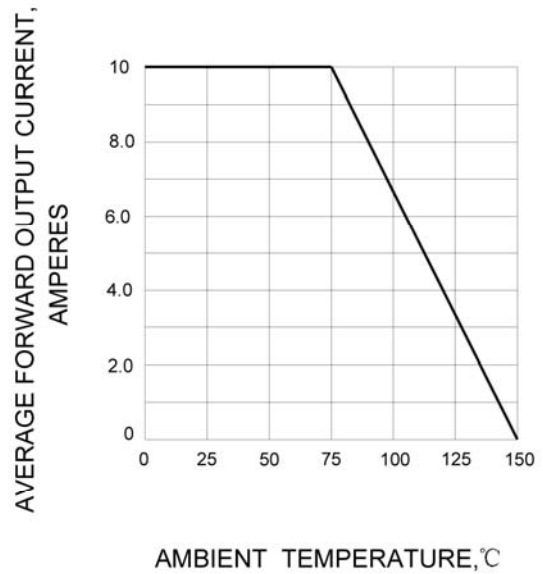


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

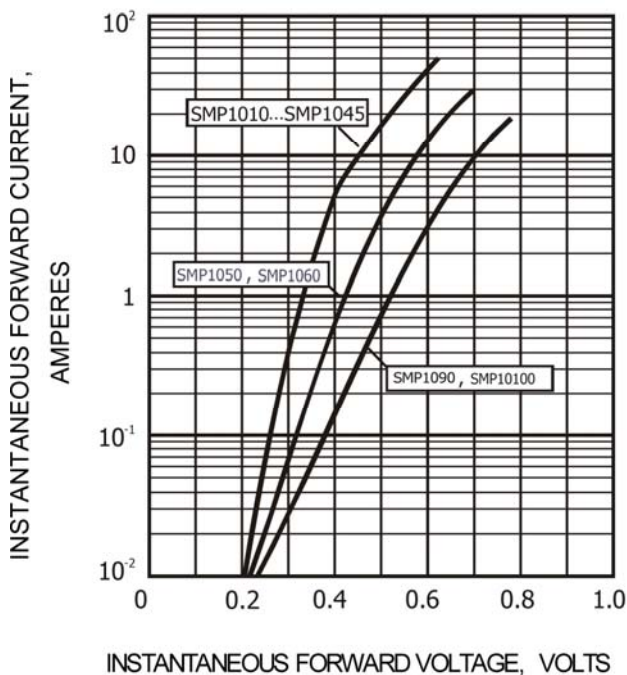


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

