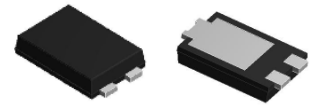
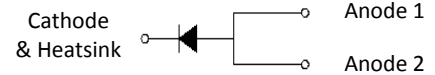


Features

- Planar Mos Schottky barrier diodes
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile - typical height of 1.1 mm
- Heatsink design
- High temperature soldering guaranteed: 260 /10 seconds
- Halogen-free according to IEC 61249-2-21 definition



eSGC (TO-277)



TYPICAL APPLICATIONS

For low voltage high frequency inverters, DC/DC converters and polarity protection application.

MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	HWCP10U45S	UNIT
Maximum repetitive peak reverse voltage	VRRM	45	V
Maximum RMS voltage	VRMS	31.5	V
Maximum DC blocking voltage	VDC	45	V
Maximum average forward rectified current	IF(AV) ¹	10.0	A
	IF(AV) ²	5.0	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	280	A
Operating junction and storage temperature range	TJ, TSTG	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Instantaneous forward voltage	IF=1A	TA=25	VF	0.30	0.33	Volts
	IF=2A			0.32	0.38	
	IF=10A			0.42	0.45	
	IF=1A	TA=85		0.22	0.27	
	IF=2A			0.25	0.3	
	IF=10A			0.36	0.42	
	IF=1A	TA=125		0.16	0.20	
	IF=2A			0.20	0.24	
	IF=10A			0.32	0.36	
Instantaneous reverse current	Rated VR	TA=25	IR	0.23	0.3	mA
		TA=85		14.5	18	
		TA=100		35	39	
Typical junction capacitance	4.0 V, 1 MHz		CJ	0.95		nF
Typical thermal resistance ¹⁾	junction to ambient		RθJA	80		/W
	junction to case		RθJC	35		
	junction to mount		RθJM	20		

Note:1))The thermal resistance from junction to ambient)case or mount)mounted on P.C.B with 30×30mm copper pads)2 OZ)FR4 PCB

2):Mounted on recommended copper pad area)free air.

RATINGS AND CHARACTERISTICS CURVES

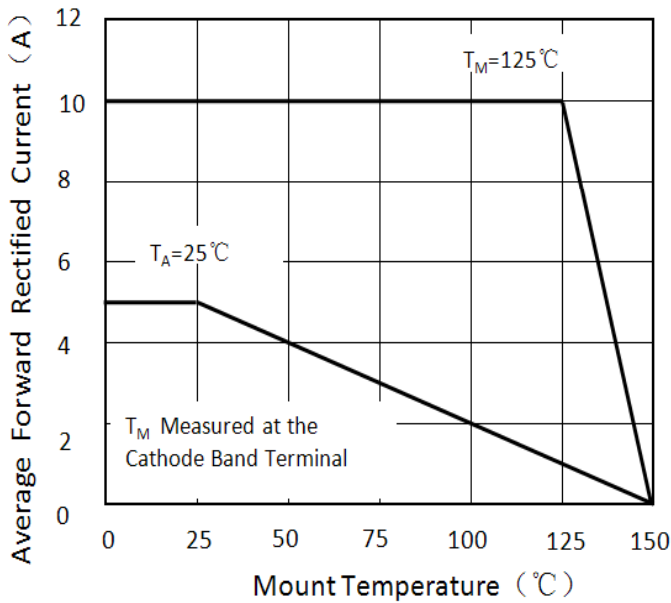


Figure 1. Forward Current Derating Curve

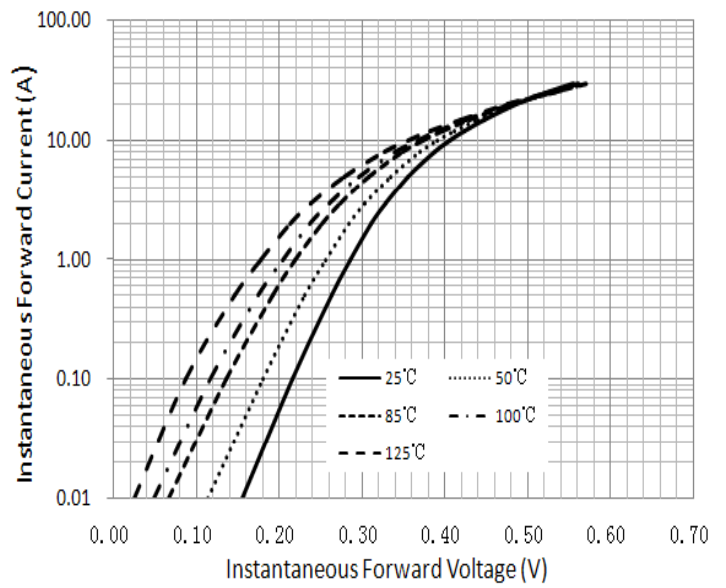


Figure 2. Typical Instantaneous Forward Characteristics

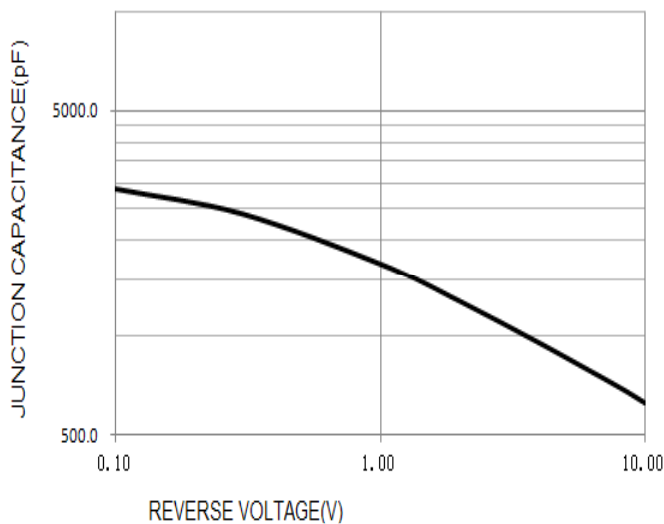


Figure 3. Typical Junction Capacitance

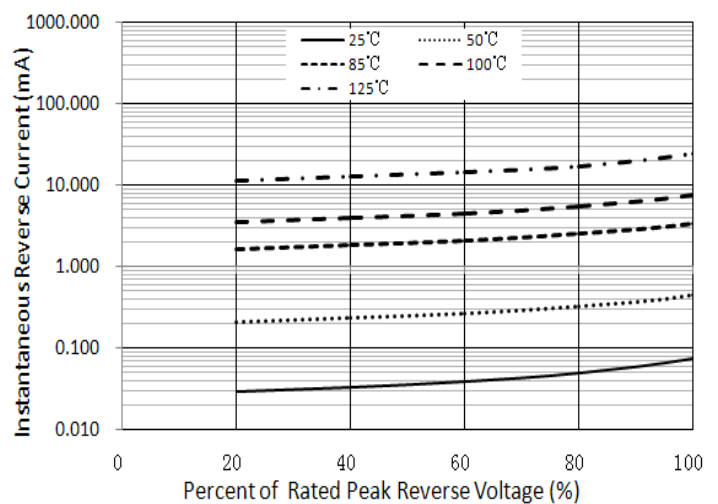


Figure 4. Typical Reverse Characteristics

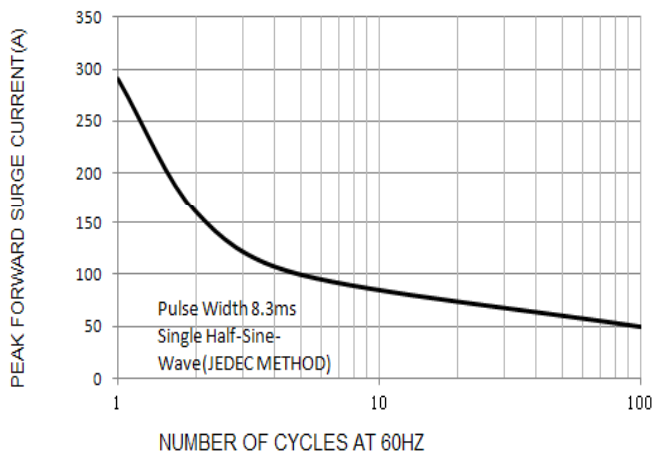
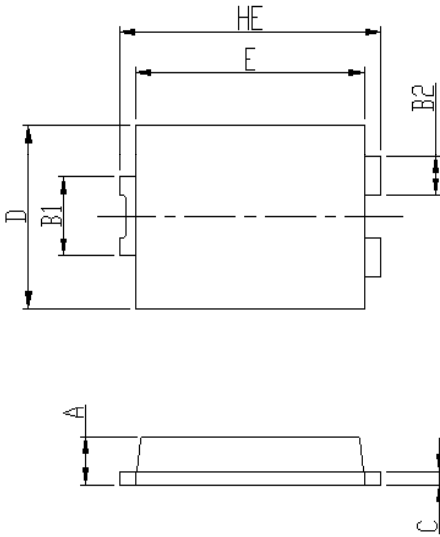
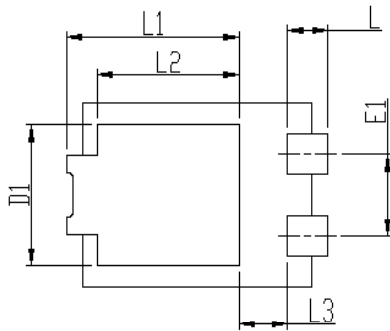


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

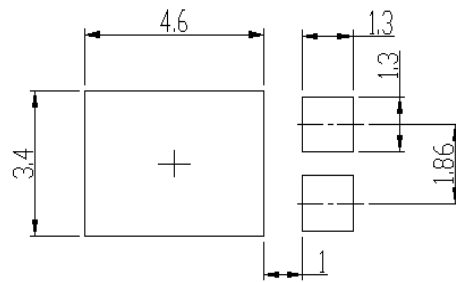
PACKAGE OUTLINE DIMENSIONS



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	



Soldering footprint



PACKING INFORMATION

Packing quantities:

5000 pcs/Reel , 12mm Tape, 13" Reel

Tape & Reel Specification

