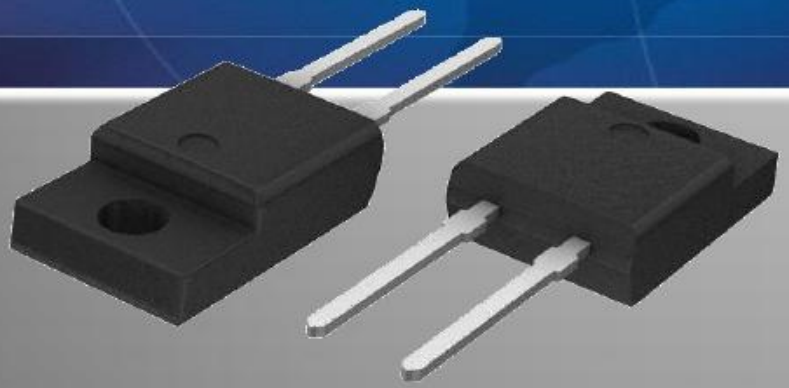
竹懋科技股份有限公司

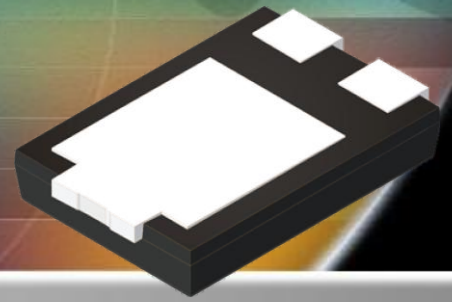
Chip Integration Technology Corporation

High Efficiency MOS Rectifiers

CSP10S45S

CSRS1045

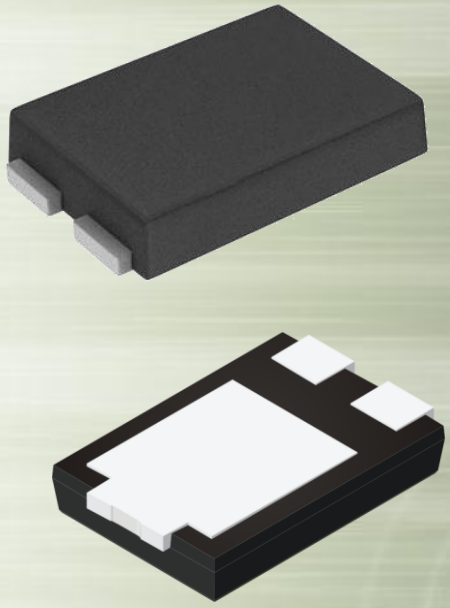




http://www.citcorp.com.tw

Features and Advantages

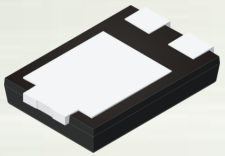
- Designed in accordance to Solar Industry Safety Standards (IEC61730-2, IEC61215-2)
- ƒUltra-Low VF
- ƒVery low high temperature reverse leakage characteristics
- Large safe operating area (SOA) with maximum selectively rated 200C junction temperature for higher reliability
- High forward surge current rating (IFSM)
- Low profile height of 1.1mm



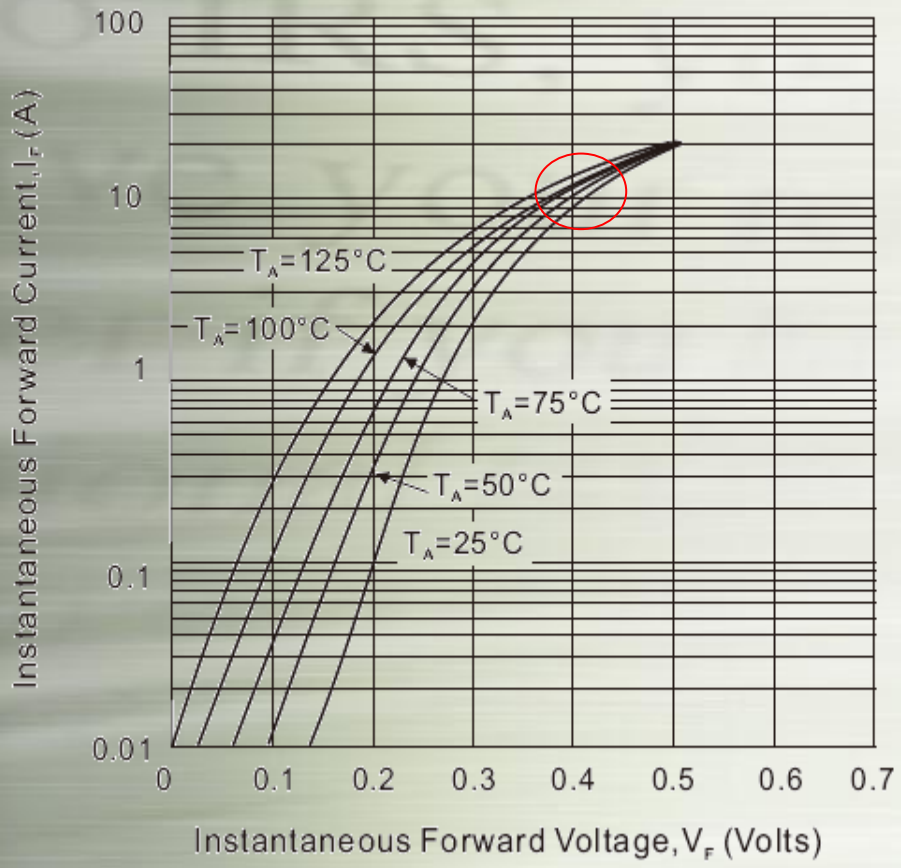
TO-277

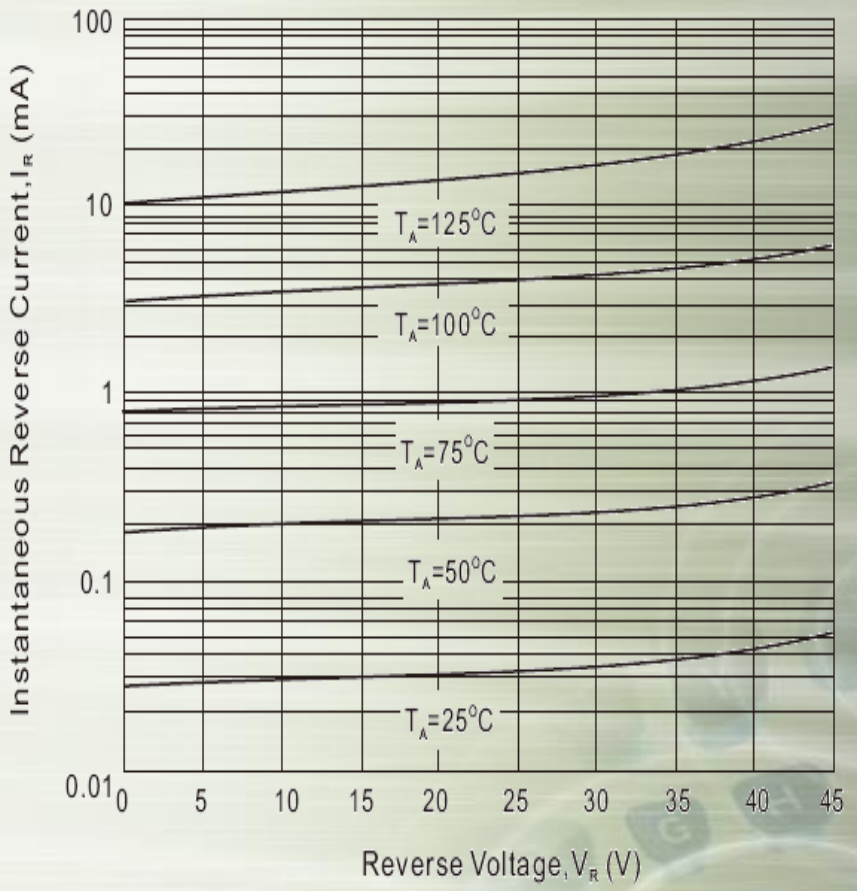
Specification

Part Number	IO(A)	VR(V)	VF(Max)			IR(Max)			IFSM(A)	Package
			Typ(mV)	Max(mV)	IFM(A)	Typ(mA)	Max(mA)	VR(V)		
CSP10S45S	10	45	400	420	8A @25℃	0.051	0.3	45V @25℃	275	TO-277
			420	470	10A @25℃	5	15	45V @100℃		
			370	410	10A @125℃	27	75	45A @150℃		
CSRS10S5	10	45		420	8A @25℃	0.051	0.3	45V @25℃	200	DO-27
			420	470	10A @25℃		15	45V @100℃		
			370	410	10A @125℃	27	75	45A @150℃		



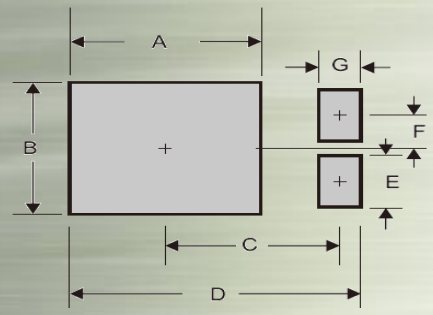
Electrical Characteristics

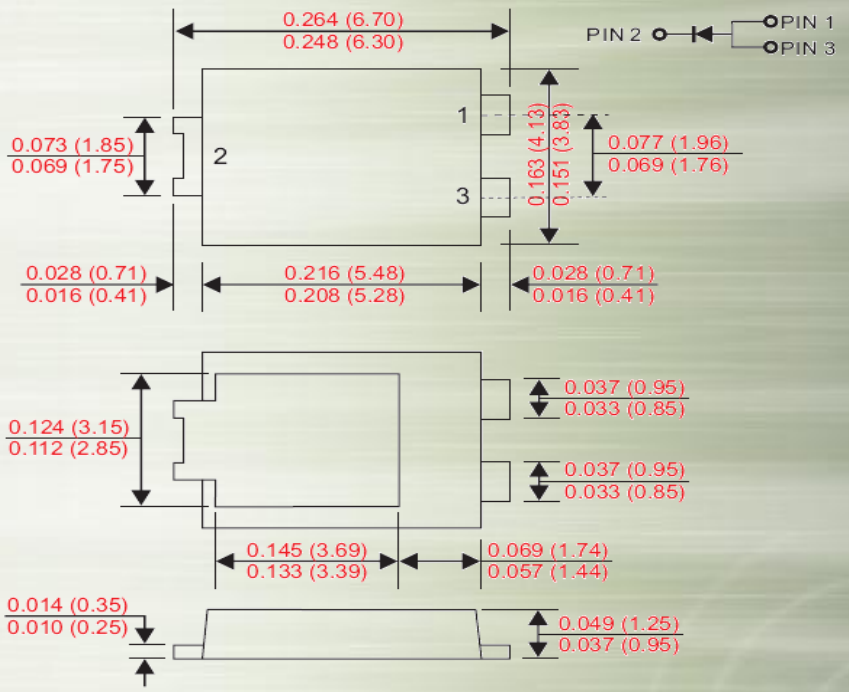




TO-277 Outline

- ƒ RoHS Compliant
- □ "Green" (No Bromine, Antimony) Molding Compound
- ƒ Pb-Free, 100% Matte Tin Plating
- ƒ Withstands 260˚C Solder Reflow
- ƒ Meet Moisture Sensitivity Level (MSL) 1
- Ideal for automated placement





A	B	C	D	E	F	G
0.185 (4.70)	0.142 (3.60)	0.152 (3.87)	0.260 (6.60)	0.055 (1.40)	0.035 (0.90)	0.031 (0.80)

Industry Standard Crosses

Industry Standard Crosses

CITC	Vishay	Diodes	Onsemi
CSP10S45S	SS10P4	SBR10U45SP5	
CSRS1045		SBR10U45SD1	80SQ045N

Samples: Now Available!

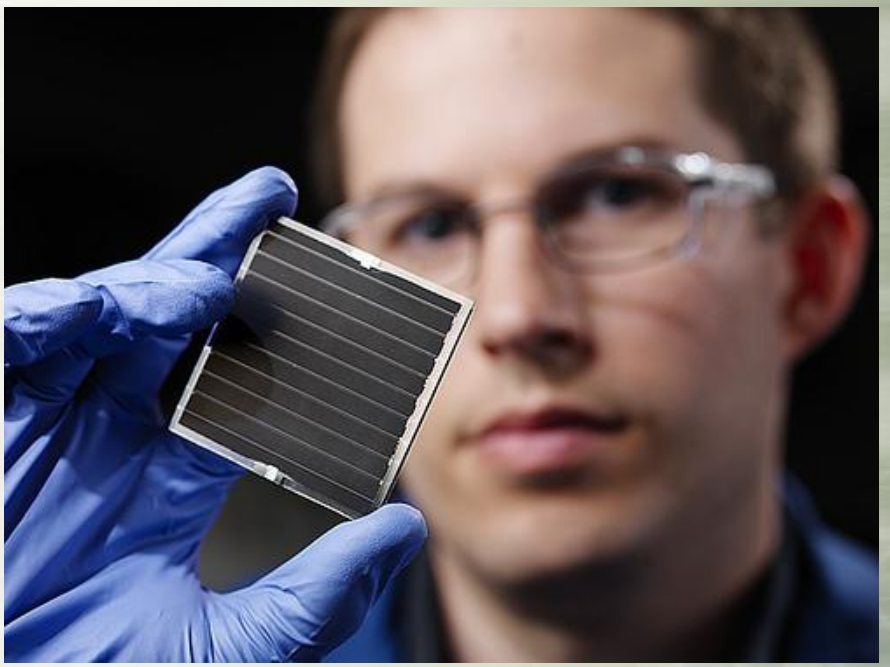
Production Quantity Lead Time: 10 – 12 weeks

Data Sheets Available NOW at: www.citcorp.com.tw

Applications: Solar Panels

Bypass diodes

- (Lighted Mode) Bypass diodes will block in high-temperature, reverse-leakage mode during lighted state of solar panel.
- (Shaded Mode) Bypass diode will operate in forward conduction mode to minimize the power loss during occasional shading of solar cells.



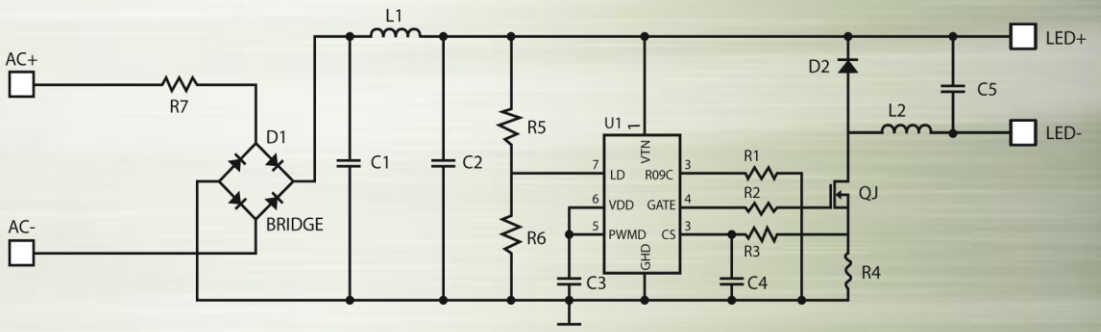
Requirements

- Typical break down voltage 45V for standard PV panels.
- 200ºC max junction temperature rating.
- IR low at high-temperature.
- V_F low to reduce forward loss.

Applications: LED Lighting

Buck/boost diode

- Buck/boost diode required for switching current to meet LED voltage requirements.



Requirements

- Break down voltage 40V - 100V
- IR low at high-temperature
  V_F low for low forward loss

Thank you!