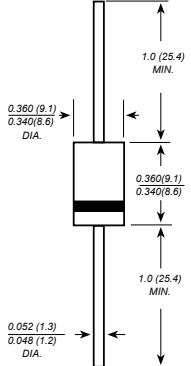


Pb Free Plating Product

30SQ045



30.0 Ampere, 45 Volt PhotoVoltaic Bypass Schottky Barrier Rectifier Diode

Features	R-6/P-600	Unit:inch(mm)
※ ThinkiSemi latest&matured process Schottky ※ Low forward voltage drop ※ High current capability ※ Low reverse leakage current ※ High surge current capability		
Application		
※ Automotive Inverters and Solar Inverters ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc. ※ Solar Junction Box Application		
Mechanical Data		
※ Case: R-6/P-600 package outline ※ Epoxy: UL 94V-0 rate flame retardant ※ Terminals: Solderable per MIL-STD-202 method 208 ※ Polarity: As marked on diode body ※ Mounting position: Any ※ Weight: 2.0 gram approximately		Dimensions in inches and (millimeters)

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	30SQ045
Device Marking Code			30SQ045
Repetitive Peak Reverse Voltage	VRRM	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25°C	IO	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine wave, 1 cycle, Ta=25°C	IFSM	A	380
Current Squared Time @1ms≤t≤8.3ms Tj=25°C	I ² t	A ² s	599
Storage Temperature	Tstg	°C	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, t ≤1 h (Fig. 1)①	Tj	°C	-55 ~+200

NOTE

① Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	30SQ045
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=30.0A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM Ta=25°C	0.5
	IRRM2		VRM=VRRM Ta=100°C	50

■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	30SQ045
Thermal Resistance Between junction and case	RθJ-C	°C/W	2.5

■ Characteristics (Typical)

