PHENITEC
SEMICONDUCTOR

YHE51

Schottky Barrier Diode

1A 40V(0.82mm)

Chip Information

Chip Size	0.82 x 0.82mm
Pad Size	0.68 x 0.68mm
Chip Quantity	16276 pcs/wafer
Scribe Line Width	60um
Passivation	PSG
Wafer Size	5 inch
Top Metallization	Al(For Wire)

Chip Thickness/Back Metal : See below "Ordering Information"

MAXIMUM RATINGS

Parameter	Symbol	Limit	Unit	Note
Repetitive Peak Reverse Voltage	VRRM	40	V	
Non-Repetitive Peak Reverse Voltage	VRSM		V	
Maximum DC Blocking Voltage	VR		V	
Average Forward Rectified Current	IF(AV)	1000	mA	
Peak Forward Surge Current	IFSM	10	A	8.3ms Single Half Sine-Wave
Storage and Operating Temperature Range	Tj,TSTG	-65 to +125	degC	

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Spec Limit	Probe Spec	Typical	Unit	Test Condition	
Maximum Forward Voltage	VF1	0.320	0.310	0.250	V	IF=100mA	Ta=25degC
	VF2	0.450		0.405	V	IF=1A	Ta=25degC
	VF3	0.750		0.665	V	IF=3A	Ta=25degC
	VF4				V		
	VF5				V		
Maximum DC Reverse Current	IR1	1000	300	55	uA	VR=20V	Ta=25degC
	IR2	50	40	20	uA	VR=2V	Ta=25degC
	IR3	75	65	25	uA	VR=3V	Ta=25degC
	IR4				uA		
Reverse Breakdown Voltage	BV	42	45	60	V	IR=0.6mA	
Junction Capacitance	Cj			60	pF	VR=2V,	f=1MHz
Reverse Recovery Time	trr				nS		

Ordering Information

Chip Type	Chip Thickness	Back Metal
YHE515	180 +/- 20um	Au(For Eutectic)
YHE517	150 +/- 20um	Au(For Eutectic)
YHE516	180 +/- 20um	Ti-Ni-Ag(For Ag Epoxy)

Note:
Designed For 1N5817W