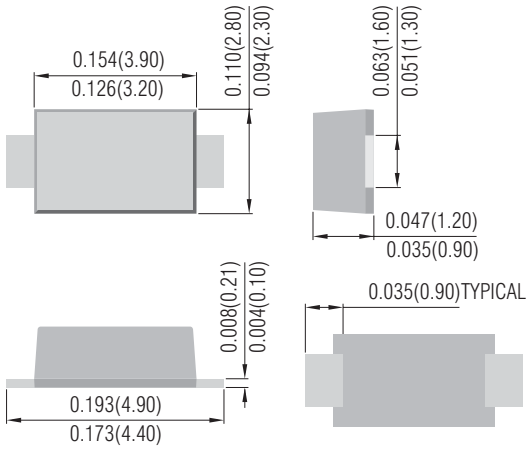
YEA SHIN TECHNOLOGY CO., LTD

S52 THRU S525

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE- 20 to 250 Volts CURRENT- 5.0 Amperes

SMF Unit:inch(mm)



Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 110A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMF
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified
Single phase,half wave,60Hz,resistive or inductive load
For capacitive load derate current by 20%

Type Number	SYMBOL	S52	S53	S54	S545	S55	S56	S58	S510	S515	S520	S525	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	250	V
Maximum RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	175	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	250	V
Average Rectified Output Current @T_L=90℃	$I_{F(AV)}$	5.0											A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110											A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	50.215											A^2s
Forward Voltage @IF=5.0A (Note1)	V_{FM}	0.50				0.67		0.82		0.90		0.92	V
Peak Reverse Current @T_A =25℃	I_R	0.1						0.05					mA
At Rated DC Blocking Voltage @T_A=100℃		10						5					
Typical Junction Capacitance	C_J	28											pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	88											℃/W
Operating Temperature Range	T_J	-55 to+150											℃
Storage Temperature Range	T_{STG}	-55 to +150											℃

Note: 1.Pulse Test with PW=300usec,1%Duty Cycle.
2.Mounted on P.C.Board with 5.0 mm²（0.13mm thick）copper pad areas.

DEVICE CHARACTERISTICS

S52 THRU S525

Fig. 1 Forward Current Derating Curve

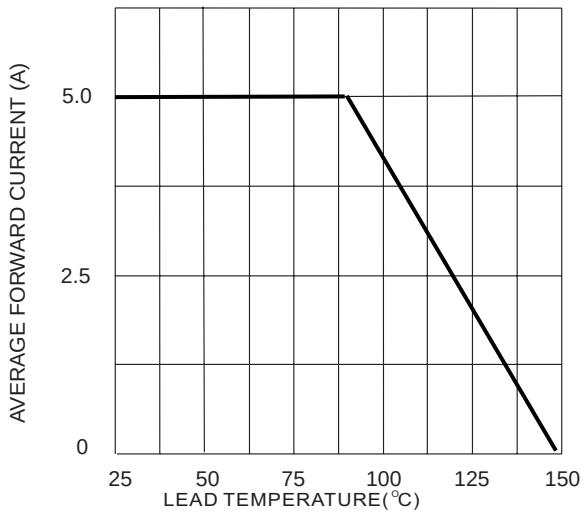


Fig. 2 Typ. Forward Characteristics

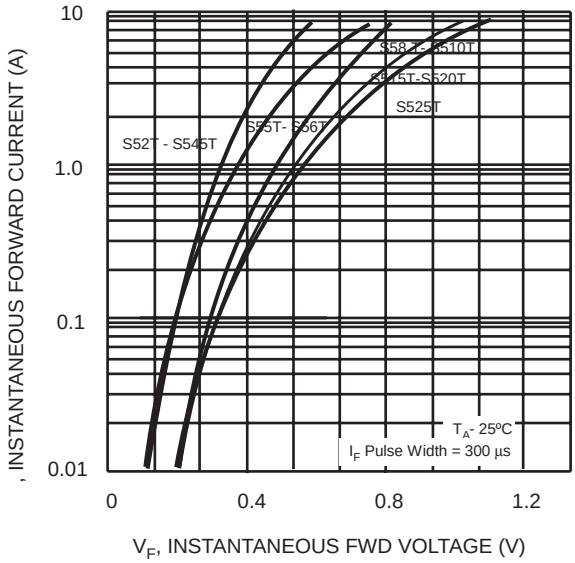


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

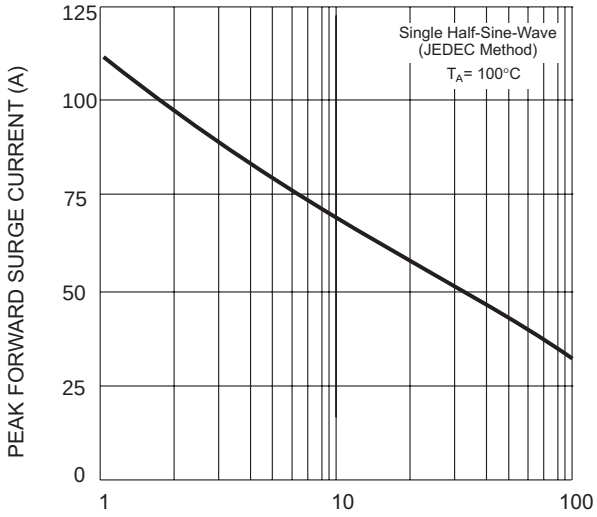


Fig. 4 T ypical Reverse Characteristics (per element)

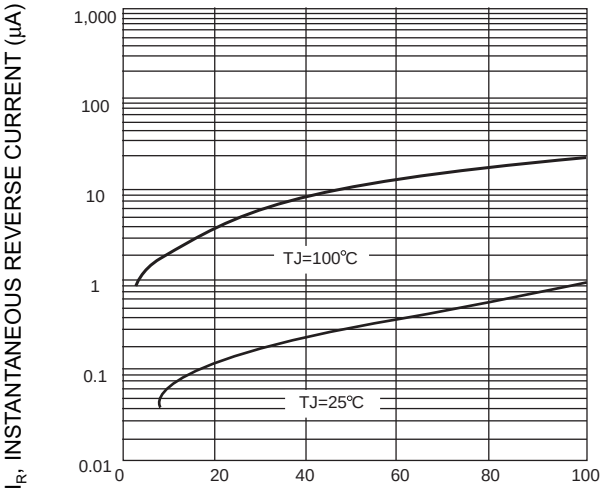


Fig.5 TYPICAL CAPACITANCE