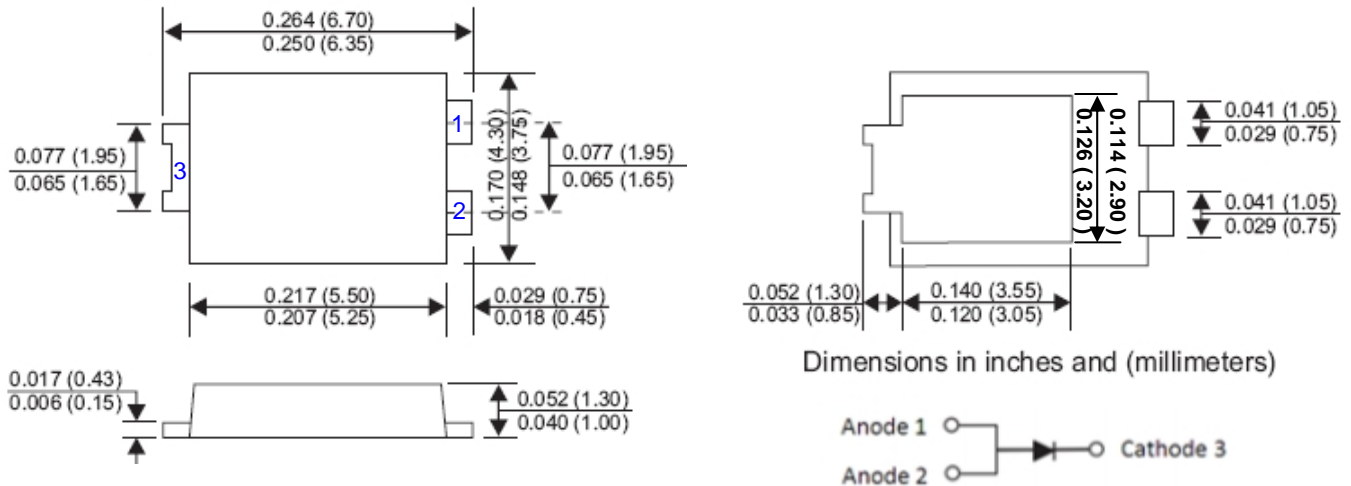


FRONTIER ELECTRONICS (KUNSHAN) CO., LTD.
15A LOW VF SURFACE MOUNT SCHOTTKY RECTIFIERS

TO-277B



FEATURES

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- HALOGEN FREE

MECHANICAL DATA

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : AS MARKED
- WEIGHT : 0.095 GRAMS (APPROXIMATELY)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SV1545L	SV1550L	SV1560L	SV15100L	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	45	50	60	100	V
MAXIMUM RMS VOLTAGE	V_{RMS}	31.5	35	42	70	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	45	50	60	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG	I_O	15				A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I_{FSM}	300				A
STORAGE TEMPERATURE RANGE	T_{STG}	- 65 TO + 175				°C
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO + 150				°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	SV1545L	SV1550L	SV1560L	SV15100L	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_F=15A$ $T_J=25^\circ C$ $T_J=125^\circ C$	VF	0.46		0.55	0.70	V
		0.42		0.50	0.65	
TYPICAL FORWARD VOLTAGE AT $I_F=2A$ $T_J=125^\circ C$		0.22		0.27	0.33	
TYPICAL FORWARD VOLTAGE AT $I_F=5A$ $T_J=125^\circ C$		0.29		0.33	0.43	
TYPICAL FORWARD VOLTAGE AT $I_F=10A$ $T_J=125^\circ C$		0.37		0.45	0.55	
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	I_R	0.5				mA
MAXIMUM REVERSE CURRENT AT 125°C PER LEG (NOTE 1)	I_R	30				mA

THERMAL CHARACTERISTICS ($T_c = -25^\circ C$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	SV1545L	SV1550L	SV1560L	SV15100L	UNITS
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta jc}$	23				°C/W

NOTES : 1. PULSE TEST: 300µS PULSE WIDTH, 1% DUTY CYCLE.

RATINGS AND CHARACTERISTIC CURVES OF SV1545L THRU SV15100L

FIG. 1-FORWARD CURRENT DERATING CURVE

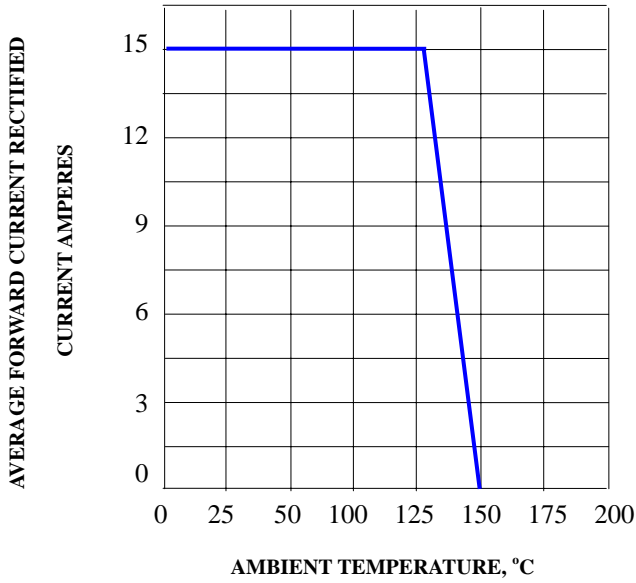


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

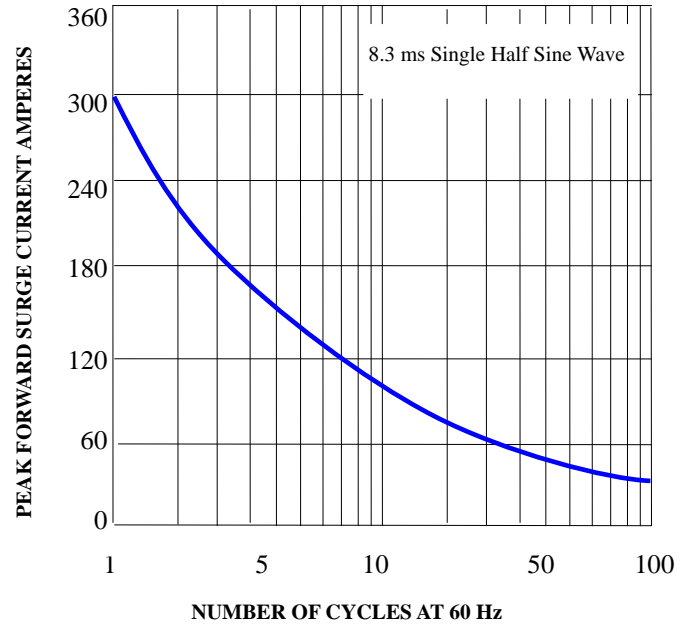


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

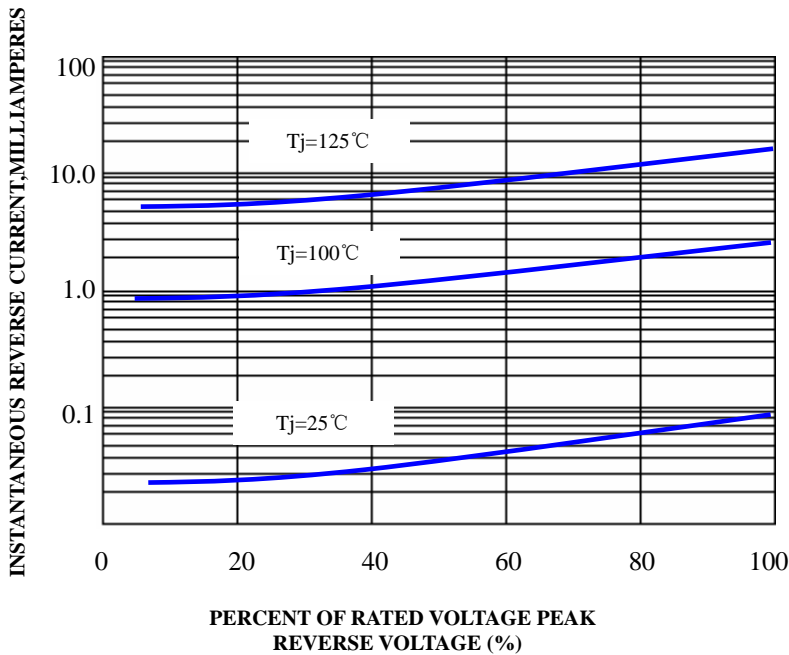


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

