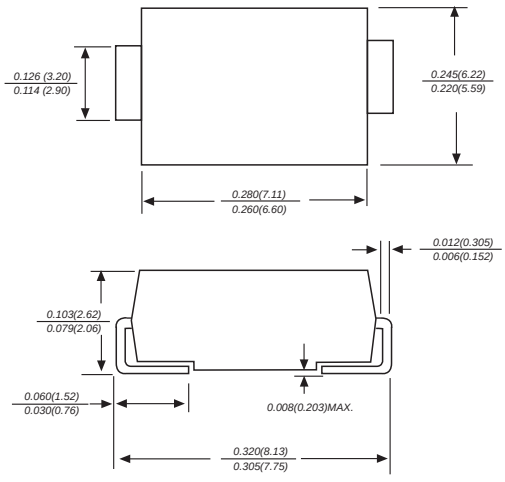
ST34C THRU ST310C

SURFACE MOUNT TRENCH SCHOTTKY RECTIFIER

Reverse Voltage - 40 to 100 Volts Forward Current - 3.0 Amperes

DO-214AB



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction,majority carrier conduction
- High efficiency operation
- Ultra low forward voltage drop,low power losses
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds,0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.007 ounce, 0.25grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	ST34C	ST36C	ST310C	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	100	V
Maximum RMS voltage	V_{RMS}	28	42	70	V
Maximum DC blocking voltage	V_{DC}	40	60	100	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	3.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0	60.0		A
Maximum instantaneous forward voltage at 3.0A	V_F	0.41	0.50	0.60	V
Maximum DC reverse current T_A=25℃	I_R	0.10	0.03	0.02	mA
at rated DC blocking voltage T_A=100℃		20.0		10.0	
Typical junction capacitance (NOTE 1)	C_J	500			pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55			℃/W
Operating junction temperature range	T_J,	-55 to +125	-55 to +150		℃
Storage temperature range	T_{STG}	-55 to +150			℃

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

STAR SEA

RATINGS AND CHARACTERISTIC CURVES ST34C THRU ST310C

FIG. 1- FORWARD CURRENT DERATING CURVE

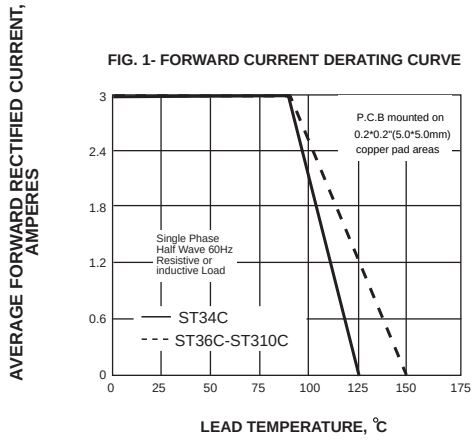


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

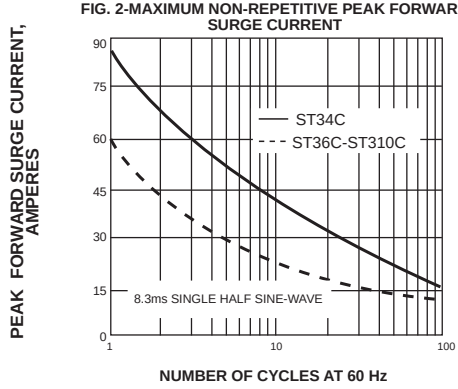


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

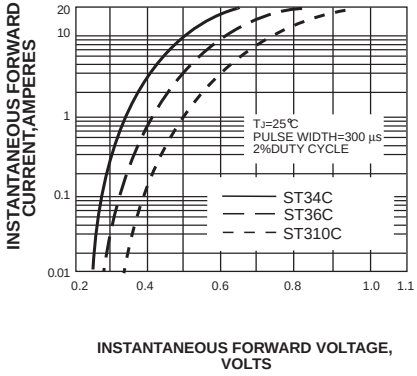


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

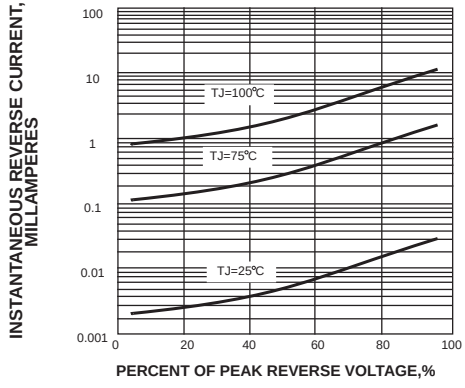


FIG. 5-TYPICAL JUNCTION CAPACITANCE

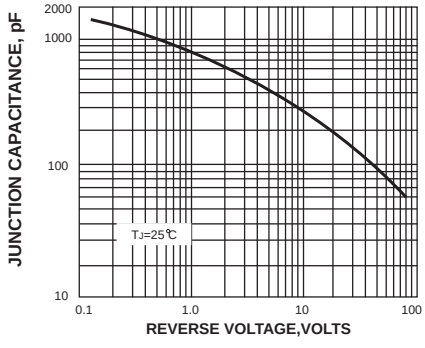
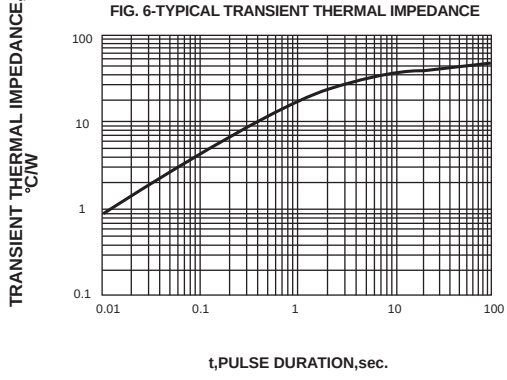


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



STAR SEA