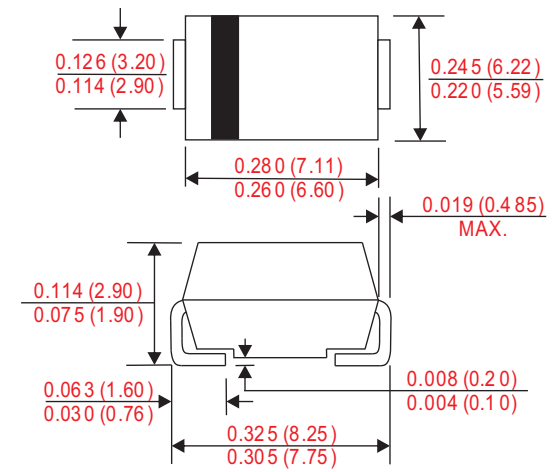


ES5AC THRU ES5MC

5 Amperes Surface Mount Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Features	Outline
• Low profile surface mounted application in order to optimize board space. • High current capability, low forward voltage drop. • High surge capability. • Superfast recovery time for switching mode application. • Glass passivated chip junction. • Suffix "G" indicates Halogen free parts, ex. ES5ACG. • Lead-free parts meet environmental standards of MIL-STD-19500 /228	SMC(DO-214AB)  Dimensions in inches and (millimeters)
Mechanical data	
• Epoxy:UL94-V0 rated flame retardant • Case : Molded plastic, DO-214AB / SMC • Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 • Polarity : Indicated by cathode band • Weight : 0.007 ounce, 0.226 gram	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	ES5AC	ES5BC	ES5DC	ES5GC	ES5JC	ES5KC	ES5MC	UNIT
Making code		ES5A	ES5B	ES5D	ES5G	ES5J	ES5K	ES5M	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum Forward Voltage	V_F	0.95			1.25	1.70			V
Operating Temperature	T_J	-50 ~ +150							°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			5.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			150	A
Reverse current	$V_R = V_{RRM} \quad T_A = 25^\circ\text{C}$	I_R			1.0	uA
	$V_R = V_{RRM} \quad T_A = 125^\circ\text{C}$				300	
Maximum reverse recovery time	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{RR} = 0.25\text{A}$	T_{rr}			35	nS
Typical thermal resistance	Junction to case	$R_{\theta JL}$		10		°C/W
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		45		pF

ES5AC THRU ES5MC

5 Amperes Surface Mount Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Rating and characteristic curves

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

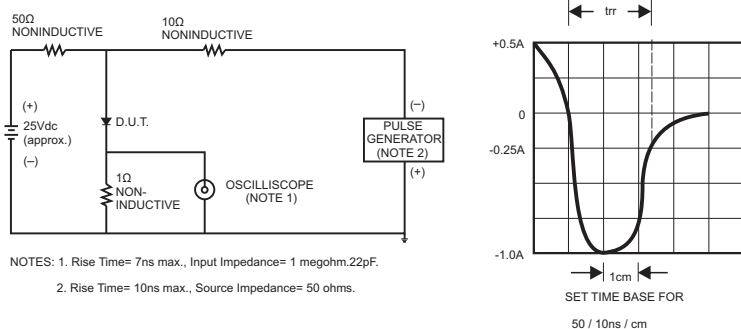


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

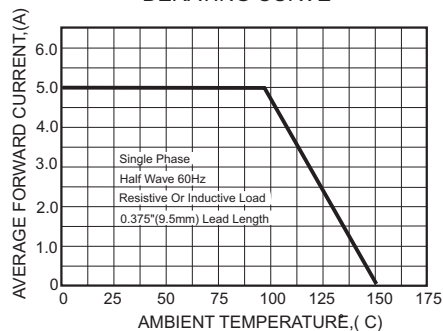


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

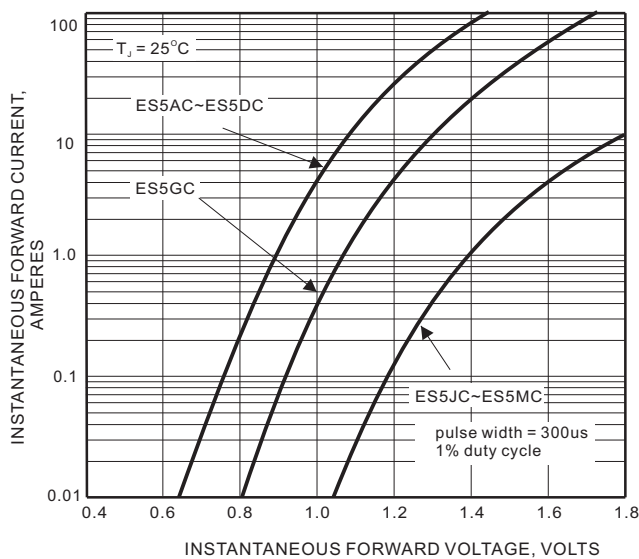


FIG.4-TYPICAL REVERSE CHARACTERISTICS

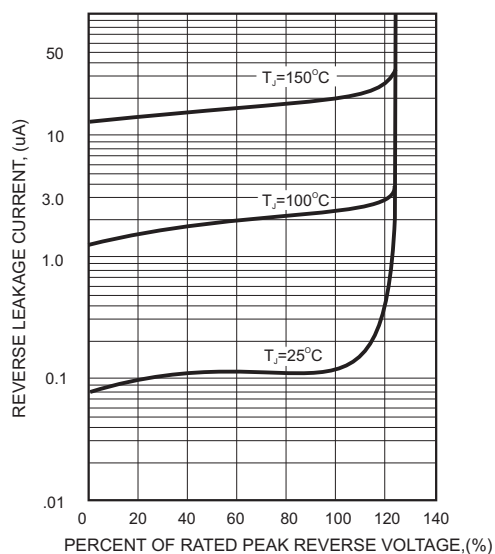


FIG.5-MAXIMUM NON-REPETITIVE

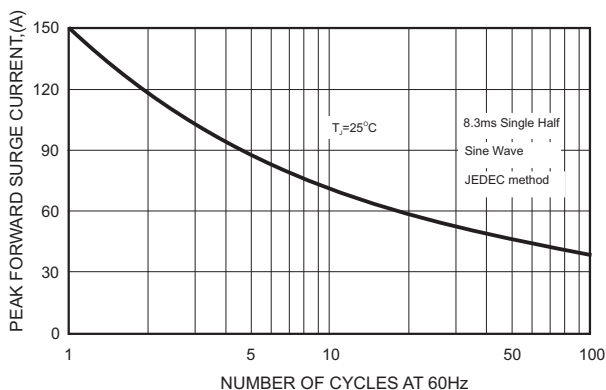


FIG.6-TYPICAL JUNCTION CAPACITANCE

