

RoHS Compliant Product

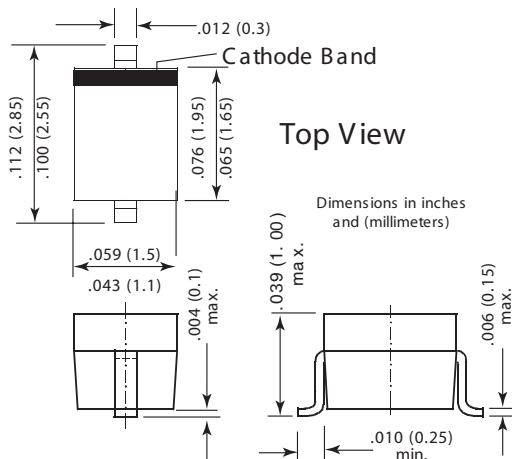
A suffix of "-C" specifies halogen & lead-free

SOD-323(SC-76)

FEATURES

- *Low Forward Voltage Drop
- *Guard Ring Construction for Transient Protection
- *High Conductance
- *Also Available in Lead Free Version

MARKING: SCS0520V: SD
SCS0530V: SE
SCS0540V: SF



Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C

Parameter	Symbol	SCS0520V	SCS0530V	SCS0540V	Unit
Peak Repetitive Peak reverse voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	20	30	40	V
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current	I _O		500		mA
Peak forward surge current	I _{FSM}		5.5		A
Power Dissipation	P _d		410		mW
Thermal Resistance Junction to Ambient	R _{θJA}		244		K/W
Storage temperature	T _{STG}		-65~+150		°C
Voltage Rate of Change	dv/dt		1000		V/μs

Electrical Ratings @T_A=25°C

Parameter	Symbol	SCS0520V	SCS0530V	SCS0540V	Unit	Conditions
Minimum Reverse Breakdown Voltage	V _{(BR)R}	20	-	-	V	I _R =250μA
		-	30	-		I _R =130μA
		-	-	40		I _R =20μA
Forward voltage	V _{F1}	0.3	-	-	V	I _F =0.1A
	V _{F2}	0.385	0.50	-		I _F =0.5A
	V _{F3}	-	0.58	-		I _F =1A
Reverse current	I _{R1}	75	-	-	μA	V _R =10V
	I _{R2}	-	20	-		V _R =15V
	I _{R3}	250	40	-	μA	V _R =20V
	I _{R4}	-	60	-		V _R =30V
	I _{R5}	-	80	-		V _R =40V
Capacitance between terminals	C _T	-	170	-	pF	V _R =1V, f=1MHz
Reverse Recovery Time	t _{rr}	-	4	-	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100

RATING AND CHARACTERISTIC CURVES (SCS0520V THRU SCS0540V)

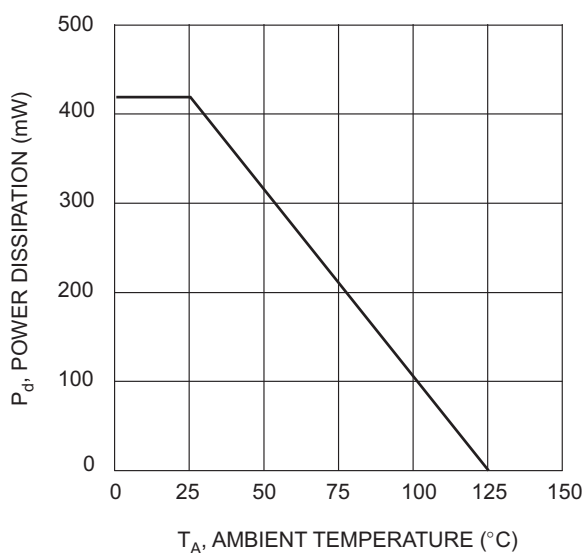


Fig. 1 Power Derating Curve

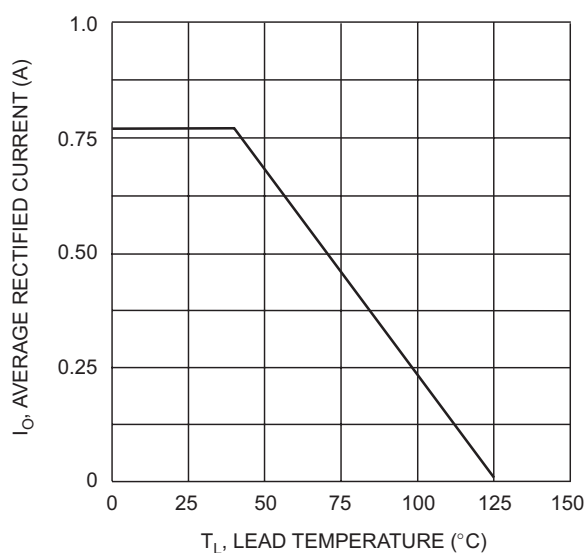


Fig. 2 Forward Current Derating Curve

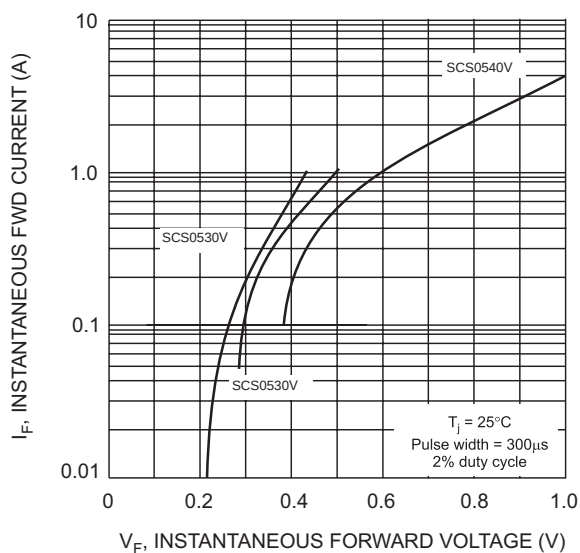


Fig. 3 Typical Forward Characteristics

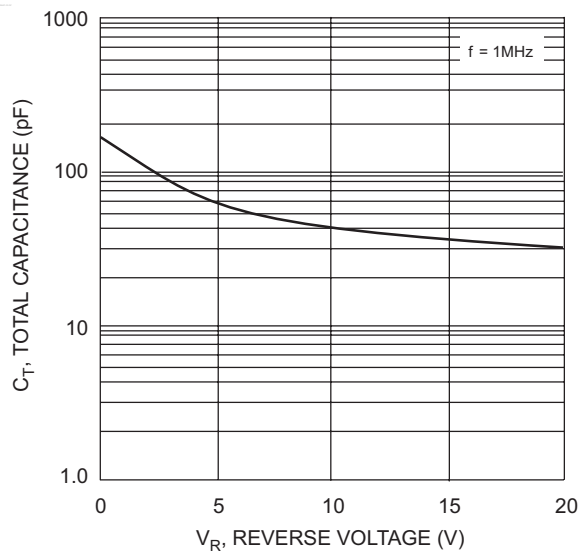


Fig. 4 Typ. Total Capacitance vs Reverse Voltage