



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23-3L Plastic-Encapsulate Transistors

2SC3838K TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.15 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.05 A

Collector-base voltage

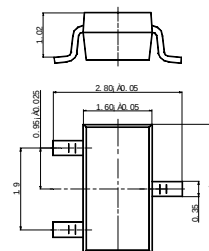
$V_{(BR)CBO}$: 20 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

SOT-23-3L

1. BASE
2. EMITTER
3. COLLECTOR



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	11			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	3			V
Collector cut-off current	I_{CBO}	$V_{CB}=10V, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=2V, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=10V, I_C=5mA$	27		270	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=5mA$			0.5	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA$ $f=500MHz$	1.4			GHz
Noise figure	F	$V_{CE}=6V, I_C=2mA$ $f=500MHz$			4	dB

CLASSIFICATION OF h_{FE}

Rank	L	M	N	P	Q
Range	27-56	39-82	56-120	82-180	120-270

Marking	AD
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